

Internet Voting in a Local Election in Canada

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Abstract In the past decade, Internet voting has been used in hundreds of binding elections at multiple levels of government throughout the world. Though many European jurisdictions have established well-developed online voting models, Canada is quickly emerging as an important research case. To date, there have been more instances of remote Internet voting in local Canadian elections than any other country. There have been more than two million remote Internet voting opportunities in over 90 local Canadian elections. This chapter analyzes the effects of online ballots by examining the City of Markham, Ontario as a case study. Using survey data from the 2003, 2006, and 2010 Markham municipal elections, a 2010 survey of candidates and other municipal data were applicable, the chapter considers which electors are using Internet voting, its potential to positively impact voting turnout, whether it is encouraging the participation of reported nonvoters, and assesses the implications for candidates and campaigns.

Introduction

For the past two decades, the deployment of Internet voting programmes has been growing worldwide. This growth has intensified in recent years because of rising Internet penetration, public use of the World Wide Web, and increasing government willingness to make use of the Internet in public service delivery. While some projects and trials have failed, others have been effectively implemented and developed, observing positive outcomes and receiving favorable feedback from stakeholders. To date, Canada, Estonia, and Switzerland represent some of the most advanced and refined Internet voting models, each at different levels of government.

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Canada, in particular, has quickly emerged as a local leader in Internet voting having offered more instances of online ballots in binding municipal elections than any country or jurisdiction throughout the world. Notably in Ontario, the October 2010 local elections offered about 800,000 potential voters the option of casting a ballot online in 44 municipalities and townships across the province. Of these communities, the City of Markham is the largest and, having offered online ballots in three consecutive election cycles, it is also one of the most established. This article provides a brief overview of the growing phenomena of remote Internet voting in Canada with a special emphasis on the City of Markham. Relying on attitudinal data collected in the Markham elections of 2003, 2006, and 2010 and research collected by Elections Canada and Intelivote Systems Inc., this article considers who is making use of online voting, the impact of Internet ballots on turnout, and finally, implications for candidates and election campaigns. Findings suggest that frequent voters are most likely to be receptive to online ballots and supports evidence from previous research that middle-aged electors are most inclined to make use of Internet voting (Alvarez et al. 2009; Internet Voting Workshop 2010). Finally, there is evidence that remote Internet voting has the potential to engage some electors with noncommittal voting records, particularly young people.

Remote Internet Voting

There are multiple types and forms of voting that use the Internet or an electronic machine to submit ballots. Alvarez and Hall (2004) identify four ways in which Internet voting can take place, including machines in polls (both in an electors' assigned poll or those that may be used in any polling place even if unassigned to the potential voter), kiosks, and voting from remote locations. Electronic machines have also been used to cast ballots, but these do not use Internet technology. Of these different online voting methods, this article focuses on instances of remote Internet voting¹ because this approach offers electors the greatest potential accessibility and convenience and therefore has the most potential to positively impact electoral participation. Polling place Internet voting, for example, may actually increase the opportunity cost of voting for some electors because it requires that they travel to the polls and involves learning a new voting method. Kiosks and other Internet machines are also less accessible than voting from home or work, even if made available in public places. Furthermore, most people associate the term *Internet voting* with voting online from remote locations such as home or work and do not often think of kiosks or machines in polling places (Mercurio 2004). Finally, the accessibility remote Internet voting offers most

¹ For purposes of stylistic relief 'remote Internet voting' is used synonymously throughout this article with 'Internet voting', 'online voting', 'Internet ballots', and 'online ballots'.

closely resembles other services provided online that are actively used by citizens, including banking, shopping, and government services (e.g., renewing passports) (Goodman et al. 2010).

Methodology

The primary data for this chapter come from a series of attitudinal surveys carried out by Delvinia, a Toronto-based company that partnered with the City of Markham in three local elections since 2003 to orchestrate marketing and voter outreach initiatives. This includes three exit poll surveys of online voters from 2003, 2006, and 2010 as well as a 2010 survey of candidates.² Data from Elections Canada and a special national survey conducted through Delvinia's AskingCanadians Panel provide broader insight into the effects of the Internet voting in Canada. Information was also gathered from key officials within certain municipalities to ensure accuracy and completeness. Finally, data from other municipalities that offered remote Internet voting in the 2010 Ontario municipal elections was made available by Intelivote, a Nova Scotia-based company, which conducted the alternative voting portion of the election (Internet and telephone) for 34 of the 44 cities and towns that chose to offer electronic voting methods in that election.

The Growth of Internet Voting in Canada

The first occurrence of Internet voting in Canada was a national New Democratic Party (NDP) leadership vote in 2003. Shortly after a group of 12 Ontario cities and townships offered online ballots in their 2003 elections.³ This marked the first instance where Internet voting was made available in a binding government election in Canada. Since then the use of Internet voting in local Canadian elections has expanded significantly. About 60 municipalities in two provinces (Ontario and Nova Scotia) have successfully deployed Internet voting programs in their communities and have plans to continue its use. In the 2010 Ontario municipal elections, for example, 44 cities and townships made remote Internet voting available to about 800,000 potential voters (or one-tenth of the provincial electorate) totaling a growth rate of about 73 % over three consecutive election cycles. Taken together, there have been over 2 million Internet voting opportunities in over 90 municipal elections. These figures represent more instances of online

² For additional information about specific samples or methods used in conducting the surveys please see the Appendix.

³ These include Champlain, Clarence-Rockland, East Hawkesbury, Hawkesbury, Markham, North Dundas, North Glengarry, North Stormont, South Dundas, South Glengarry, South Stormont, and the Nation (Goodman 2010).

voting in binding elections than any other country or jurisdiction, making Canada a world leader in Internet voting at the municipal level.

Recent news suggests expansion locally and at other levels of government. A majority of the eligible electors in municipalities in the province of Nova Scotia were offered the option to vote remotely by Internet and telephone in their October 2012 elections. Of those participating in the elections that offered e-voting,⁴ over 63 % of voters cast their ballots electronically (Smith 2012). Large municipalities in other provinces have also expressed an interest in offering Internet voting. The largest city in British Columbia, Vancouver, for example, approved the use of Internet ballots in the advance polls of its 2011 election, but the proposal was blocked by jurisdictional issues between levels of government prior to implementation (Pearce 2011).⁵

Though no tests or trials are confirmed at the provincial level, some provinces have been actively researching the benefits and drawbacks of online ballots. In Ontario specifically, the passage of the *Election Statute Law Amendment Act* (Bill 231) in May 2010 provides the province with the authority to test an electronic voting method pending approval from the Ontario Legislative Assembly and the province's Chief Electoral Officer (CEO). It also gives the provincial elections agency, Elections Ontario, the directive to report back to government on the feasibility of "network voting"⁶ in Ontario by 2013 (Pollock 2011). The passage of this legislation provides the basis for a supportive legal framework and contributes toward creating a culture of support for Internet voting as an alternative voting method.

At the federal level, Canada's national election agency, Elections Canada, committed to trialing Internet voting as part of its Strategic Plan 2008–2013. This decision reflects amendments made in 2001 to the *Canada Elections Act*,⁷ which allow the CEO to test an electronic voting system in a by-election or general election (Kohoko 2011). The trial requires the parliamentary approval prior to implementation, which Elections Canada plans to seek sometime after the 2015 election. In the meantime, the agency will continue researching and monitoring Internet voting in other jurisdictions.

⁴ E-voting here refers to casting a ballot remotely by Internet or telephone. Both Internet voting and telephone voting were offered as alternative voting methods by 14 Nova Scotia municipalities in their October 2012 local elections.

⁵ Though passed by city council, Vancouver was required to pass a by-law and have its online voting plan approved by the province given that it was incorporated before the British Columbia and is therefore governed under the *Vancouver Charter* and not the provincial municipal elections legislation (Kohoko 2011). With an electorate of 410,000 Vancouver would have been the largest Canadian municipality to offer online ballots in a binding election to date (Pearce 2011).

⁶ The term 'network voting' will allow Elections Ontario to conduct a trial including any one of the following voting methods—telephone, fax, Internet, and possibly SMS (text message) or a multi-platform trial including a combination of electronic methods. Decisions regarding whether a trial will take place, and if so its scope, are to be determined in the coming weeks (Pollock 2011).

⁷ These changes were made in 2000.

Aside from developments in government elections, the use of Internet voting remains strong in other types of elections as well. Many unions are increasingly opting for online ballots in their elections and there is significant uptake among political parties. Online ballots were used by the federal New Democratic and Liberal parties to elect their leaders in March 2012 and April 2013, respectively. Provincial leadership contests have also gravitated toward online voting in recent years. Some notable party elections using Internet ballots include: the Saskatchewan NDP, the Ontario NDP, the British Columbia NDP, and Liberal Party,⁸ the Alberta Party and Alberta Liberal Party, as well as the New Brunswick Liberal Party (Smith 2012).

The expansion of Internet voting in Canada is well suited given the robust levels of public support for the alternative voting method. Data from a 2011 national survey indicates that about 85 % of Canadians support the introduction of Internet voting as a complementary method of voting in elections. A similar majority also reports being likely to make use of online ballots if introduced, at all levels of government (Delvinia 2011). Data from voters who cast ballots over the Internet in the Ontario municipality of Markham (Delvinia 2003, 2007, 2011) also suggests increasing support for Internet voting at other levels of government. Notably, 99 % of those surveyed reported being likely to vote online in a provincial or federal election if it were an option.

Taken together, growth in the number of Canadian municipalities that offer online ballots in binding local elections, strong public support for the policy change, and increasing interest on the part of governments and election agencies suggest Canada is a hot spot for Internet voting development. The frequency of elections with an Internet voting option and prospects for expansion make Canada an important research case, particularly for other jurisdictions considering the introduction of online voting. By critically examining the City of Markham as a case study, and bringing in other examples and cases where relevant, this article sheds the light on the impact of Internet voting on an election and the effects of online ballots for voters and candidates.

Markham

Markham is the largest Ontario municipality to offer Internet voting and the only major district to do so in three consecutive binding elections. Online ballots were made available to Markham electors in advance polls for 5 days in 2003, 6 days in 2006, and 7 days in 2010. The Markham model operates on a two-step process, which requires electors to register to vote online before they are able to cast a ballot.

⁸ The Liberal winner was also declared the new provincial premier.

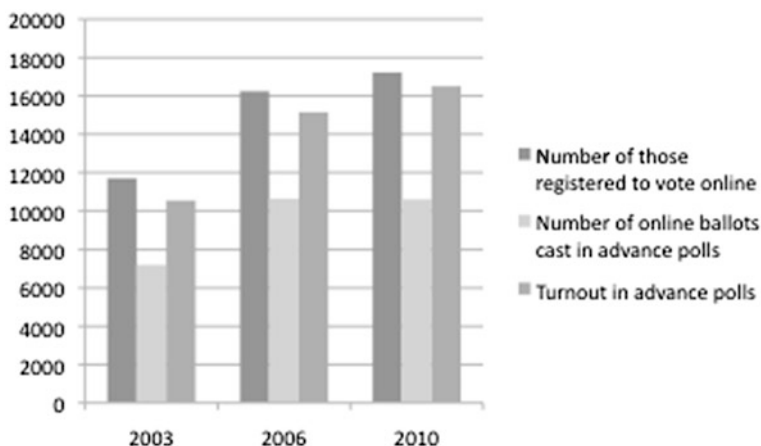


Fig. 1 Online registrants, ballots cast, and advance turnout in Markham elections. Data provided by the City of Markham (Turpin 2011a)

All eligible electors are sent a voter notification card by mail and receive a second card by registered mail upon completing the online registration process. This involves using a unique PIN (a randomly generated numeric credential), creating a seven-digit personal pass code (that must also be numeric), and entering their birth date.⁹ The second mail out contains another unique PIN to be used along with the personal passcode electors create during the registration process in order to vote (Turpin 2011b).

Voter satisfaction with Markham's Internet voting system has been consistently high (about 99 %) in all three elections. In 2010, for example, those that reported being "very satisfied" increased 10 % from previous years.¹⁰ In addition to strong levels of satisfaction, with each election the number of Internet voting registrants in Markham has grown and a majority of advance poll voters have chosen to cast their ballots online (see Fig. 1) (Turpin 2011a). Although the number of online ballots cast decreased very slightly (by less than 100 votes) in 2010, overall advance turnout noted a small increase.¹¹ On the whole Markham electors have responded favorably to Internet voting by making use of the alternative voting method and offering positive reviews of the system.

⁹ This process differs slightly from the one used in 2003 and 2006, whereby electors were required to create a unique security question and did not have to submit their birth date. This was a new security measure for 2010 (Turpin 2011b).

¹⁰ This increase in reported satisfaction may have something to do with the changes Markham made to the voting process (Delvinia 2011).

¹¹ Reasons for the decrease could be many, notably a different online voting marketing approach.

Who is Making Use of Internet Voting?

Many speculate that the incorporation of technology into the political process will encourage the participation of young people (Norris 2001; Milner 2010). However, data analyzing the use of Internet ballots by age group shows that it is not the youngest cohort that votes online most frequently, but rather more established electors. Analysis of Estonian e-voting by age in the 2007 federal election shows that those aged 25–49 were most likely to cast a ballot online (Alvarez et al. 2009). Data collected by Elections Canada confirm this finding in all Estonian elections with an online ballot component except the 2009 European Parliamentary elections, where those aged 50–59 were just as likely to vote online as those aged 30–49. In addition, data from a referendum in Geneva in 2004 find that voters aged 30–39 were the most popular users of online voting. Finally, a 2004 election in the Netherlands revealed that those aged 40+, and particularly voters aged 60–69 made the most use of online ballots (Elections Canada 2011). While these results are mixed, they suggest that the youngest cohort (aged 18–24) is not as likely to actively use Internet voting as older generations of electors. This lower rate of use, however, may have more to do with the fact that young people are less likely to participate electorally than with the appeal of online ballots (Pammett and LeDuc 2003).

Canadian data reveals a pattern somewhat similar to that found in European elections, although overall use of Internet voting in Canada is most prevalent among middle-aged electors (Goodman 2010). Results from Markham show that those aged 35–64 are the strongest Internet voting users in all election years and suggest that online ballots are growing in popularity among older voters while use is waning among younger voters (see Fig. 2). Since 2003, there has been a notable spike in use of Internet voting among those aged 55 and older. Similar findings of use by age group have also been observed in Nova Scotia municipalities (Goodman 2010). Though data from additional election years is needed prior to drawing any broad conclusions, these findings may reflect the simple aging of committed Internet voters. They could also be an indication of greater Internet penetration and use among older generations.

Comparing Markham to other Ontario municipalities and townships (for which data on Internet voting use is available in 2010) reveals a noticeable difference in use by age between younger and middle-aged voters (see Fig. 3).¹² Those aged 50 and older are considerably or at least moderately more likely to make use of online ballots in all 34 communities. This offers further support that middle-aged and older electors appear most likely to use online voting and is interesting for a number of reasons. First, it goes against popular perception that younger electors should be the target group of Internet voting initiatives. Though this difference in use could perhaps be explained in part by patterns of voting behavior, notably the fact that older electors are known to vote at higher rates than younger citizens, it still depicts

¹² The data was grouped into these age categories because that is how it was made available.

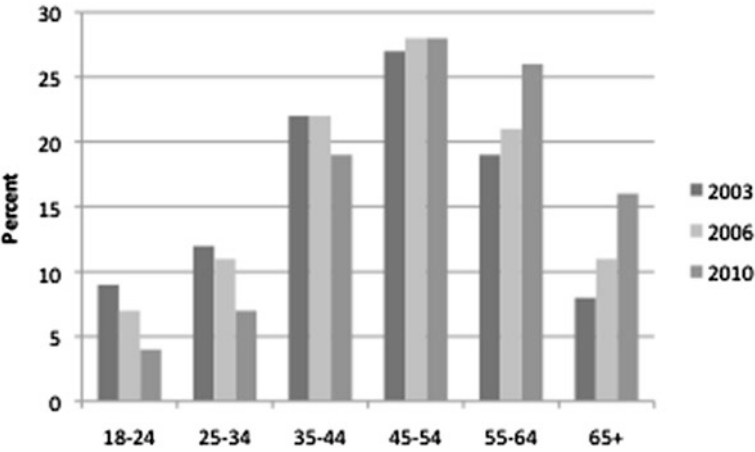


Fig. 2 Age of Internet voters in Markham. Data drawn from the 2003, 2006, and 2010 Markham online voting studies conducted by Delvinia, and the City of Markham, and 2010 age data from Intelivote Systems Inc

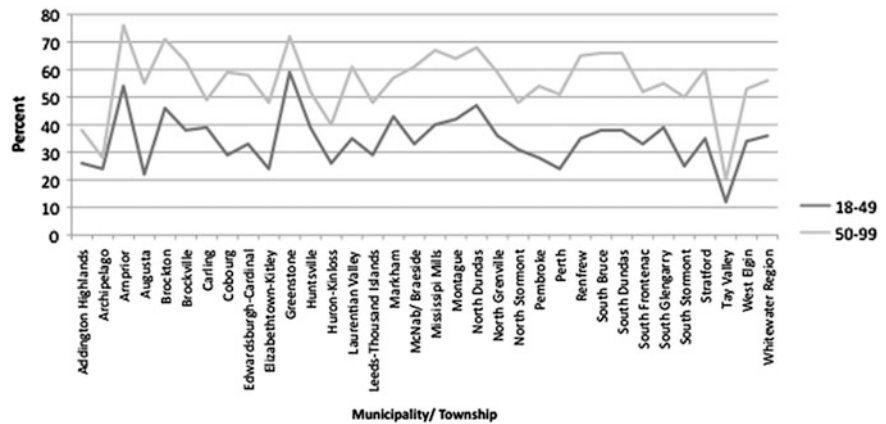


Fig. 3 Age of Internet voters in 33 Ontario municipalities. Data taken from Intelivote Systems Inc

a trend in use among those 50 and older. It may be that the extension of online voting is more about making the electoral process convenient for middle-aged and older electors and less about serving as a tool of engagement for the younger generation. This is also interesting given the fact that older electors in Markham report being less familiar with computers and using the Internet less than their younger counterparts (Delvinia 2011). It may be that a high level of use and familiarity with the Internet are not such powerful preconditions to using online voting.

Finally, it is curious that Internet voters in Ontario municipalities seem to be slightly older than online voters in Europe.¹³ This may have something to do with the higher rate of Internet penetration in Canada (see Goodman 2010).

Turnout and Use of Internet Ballots

Proponents of Internet voting are quick to cite increases in turnout as a primary benefit of online ballots. Critics, however, are more hesitant and suggest that increases are not guaranteed and may be marginal at best. Existing literature has found it difficult to establish a causal link between the extension of Internet voting and turnout as more data is needed to clarify whether there is indeed a relationship. Currently, most of this research examines Estonian elections. Trechsel et al.'s (2010) analysis of turnout and Internet ballots in Estonia's 2009 local elections, for example, shows that turnout may have been 2.6 % lower had online ballots not been an option. By contrast, Bochsler's (2010) examination of Estonia's 2007 national parliamentary elections concludes that the increase in turnout from 2003 to 2007 can be explained by other factors and that Internet ballots seem to be used by those people who would have otherwise voted in polling stations. Additional data and turnout simulation is required to obtain a clearer picture. The case of Markham produces mixed results finding some support for Bochsler's conclusions, but also suggesting potential to increase turnout, albeit not every time.

Although turnout has not increased substantially in every Markham election where Internet voting was made available, advance polls noted a 300 % increase from 2000 to 2003 and a further 43 % rise in 2006 (Goodman 2010). As noted earlier, there was a less than 1 % decrease of advance online ballots in 2010, but overall turnout was down slightly as well (from 38 to 36 %), probably due to an uncompetitive race where the incumbent was perceived to be the clear victor early on (Froman 2010). Despite the lack of gains in 2010, the number of online registrants increased 6 % and, on the whole, advance turnout in Markham has been transformed as a consequence of Internet voting. For example, before 2003 a typical advance turnout was a couple thousand votes, but since the introduction of Internet ballots it averages about 10,000. Though the impact on overall turnout is marginal, Markham electors are making use of Internet ballots and turning out to the advance polls in much higher numbers.¹⁴

Looking to other Canadian municipalities the effect of Internet voting on turnout is mixed, although voters are clearly making use of online ballots more so, in fact, than telephone or paper options. Comparing turnout rates from 21 municipalities that offered Internet voting for the first time in 2010–2006

¹³ An exact breakdown of online participation by the same age categories would confirm this.

¹⁴ If online voting were made available throughout the entire voting period including election day, its impact on overall turnout would be more easily evaluated.

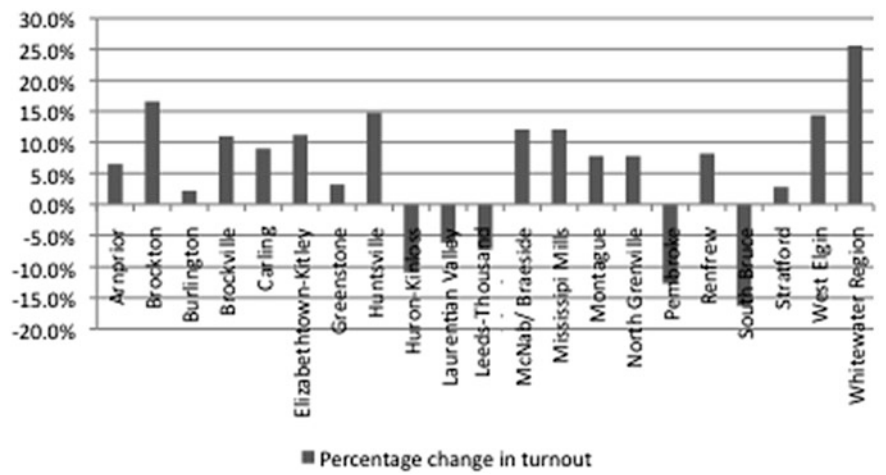


Fig. 4 Percentage change in turnout from 2006 to 2010 in Ontario municipalities. Data taken from Intelivote Systems Inc. and Hewitt (2011)

participation levels reveals a turnout increase in 16 and a decrease in 5 (see Fig. 4). Though there are many other contextual factors that affect turnout, and so which could be responsible for fluctuations in electoral participation, the decreases suggest that Internet voting is not a panacea for all the causes of declining turnout, while the increases imply that for some the added accessibility and convenience offered by Internet voting encourages turnout.

Examining the methods of voting used in municipalities that offered alternative voting options such as remote Internet and telephone voting reveals that remote Internet voting is the most popular method of casting a ballot in a majority of municipalities and townships across Ontario (see Fig. 5).¹⁵ The data in Fig. 5 shows that in 2010 a minority of voters opted for traditional paper ballots, while Internet ballots were consistently popular in all communities. Though this does not shed light on turnout per se, it does illustrate that voters are making use of the service and in many municipalities and townships the accessibility of online voting has been cited as accounting for modest increases in overall turnout (Delvinia 2011; Goodman et al. 2010). In the City of Burlington, for example, where Internet voting was only offered in advance polls, advance turnout increased by more than 40 %. The impact on overall turnout was only about 2 %, but the extension of Internet voting had an important effect on the advance portion of the election (Hewitt 2011).

¹⁵ Please note that this is not a comprehensive list of all municipalities and townships that offered remote Internet voting in the 2010 Ontario local elections. The data shown was collected by Intelivote Systems Inc., the remote Internet and telephone service provider for a number of municipalities, and supplied by Dean Smith, CEO/President.

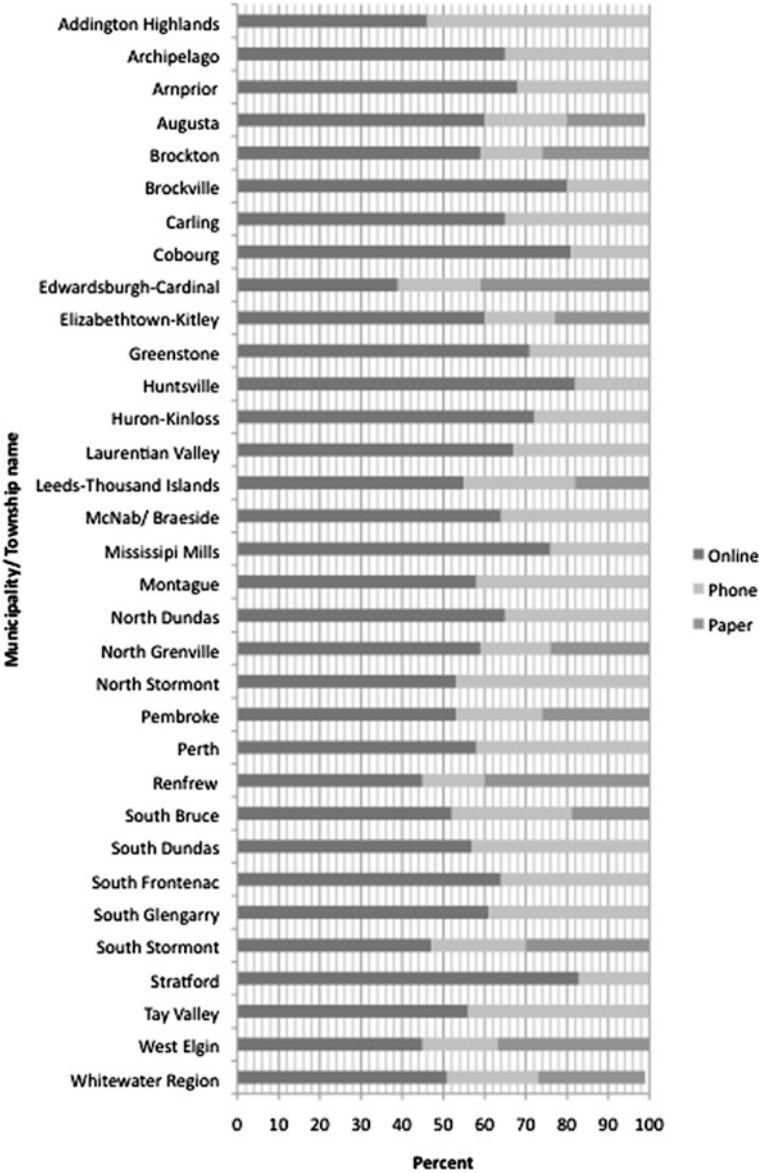


Fig. 5 Methods of voting in 33 Ontario municipalities and townships, 2010. Data taken from Intelivote Systems Inc

Turnout, Nonvoters, and the Ability of Internet Voting to Engage the Young

Another approach to gauging whether the extension of remote Internet voting has a positive effect on electoral participation is to assess its impact on respondents who report having noncommittal voting records.¹⁶ If the option of online voting can successfully promote participation among those who had not participated previously or had taken part sporadically it could have a positive affect on turnout. In Markham, 9 % of Internet voters in 2010 reported having not voted in 2006. Similarly, 21 % of 2006 voters claimed they had not voted in 2003, and 25 % of 2003 online voters said they did not vote in the 2000 municipal election (Delvinia 2003, 2007, 2011). These figures suggest that the extension of remote Internet voting may have the potential to encourage the electoral involvement of nonvoters or those who participate in elections less frequently. The fact that the number of previous nonvoters decreased 12 % between 2006 and 2010 could be attributed to the fact that less young people (who vote at lower rates than older electors and are more likely to report noncommittal voting records) made use of Internet voting in the 2010 election. Similar findings about reported nonvoters making use of Internet voting has been detected in Estonia (Alvarez et al. 2009; Goodman et al. 2010).

To get a better sense of the relationship between reported voting record and whether online voters would have cast a ballot had Internet voting not been an option, the question “If you didn’t have the option to vote by Internet, would you still have voted?” is correlated with an additive scale constructed from responses to “Considering elections at all levels of government, since you became eligible to vote would you say you have participated in...federal elections, provincial elections, and municipal elections?” Based on their responses online voters were divided into three categories: frequent voters (those who report voting “in all elections” were given a value of 1.00), occasional voters (those who report voting ‘in some elections’ or ‘from time to time’ were given a value of 2.00), and nonvoters (voters who said they ‘never’ vote were given a value of 3.00).¹⁷ Responses were then added together producing a nine-point scale. Using Kendall’s tau-b to assess whether there is a relationship between the two variables reveals a strong positive correlation between the two (tau-b = 0.359; sig. = 0.000), meaning that people who are more likely to be voters or who have committed past voting records are more likely to be receptive to Internet voting. This result is consistent with Bochsler’s (2010) finding in Estonian elections that Internet voters primarily include those already keen to take part electorally, but does it mean online voting has little to no capacity to persuade less committed or nonvoters to participate?

¹⁶ This includes nonvoters and those who say that they vote ‘occasionally’.

¹⁷ See Trechsel (2007) or Breuer and Trechsel (2006).

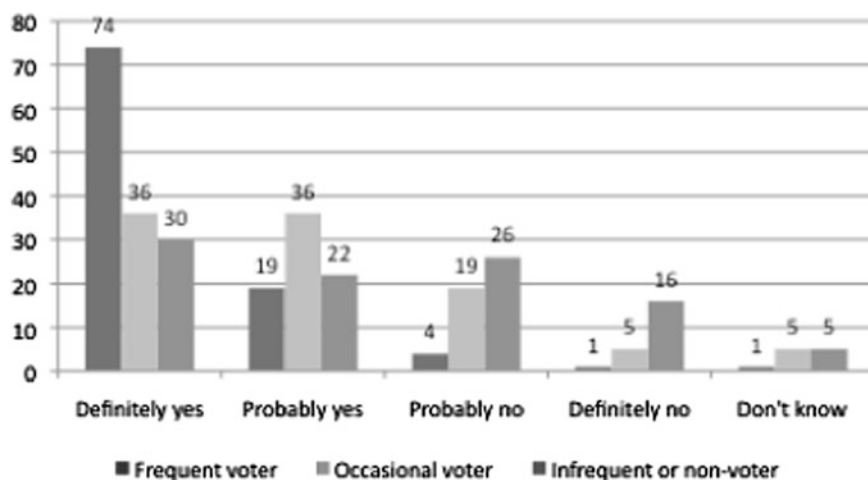


Fig. 6 Likelihood of voting if Internet ballots not been available, by voting record. Data drawn from the 2010 Markham online voting study conducted by Delvinia

To gain more insight as to whether Internet ballots can motivate less committed electors to vote, the scale was reduced to three categories.¹⁸ Examining responses by percentage to the question, ‘If you didn’t have the option to vote by Internet, would you still have voted?’ (see Fig. 6) shows that infrequent or nonvoters were most likely to say that they would not have cast a ballot if Internet voting were not available (Delvinia 2011). Occasional voters were slightly more certain about their likelihood of voting, but about 26 % said they ‘probably’ would not have or ‘definitely’ would not have participated (Delvinia 2011). These figures show that the certainty of voting without the option of online ballots decreases as the voting record becomes less committed. This could be because occasional and infrequent/nonvoters are always less sure about whether they will cast a ballot in an election, however it might also be an indication that Internet voting can encourage some nonvoters and (fewer) occasional voters to participate during election time.

Noting that the youngest online voters are least likely to participate and hence most likely to belong to the occasional and infrequent/nonvoting categories it is useful to assess responses to this question by age group. Grouping responses into “yes” and “no” categories by age reveals that the youngest online voters (aged 18–24) are twice as likely as any other group to say they “probably” would not have or “definitely” would not have voted had Internet ballots not been an alternative voting method. Not surprisingly, the likelihood of voters saying they

¹⁸ Values in the scale ranged from 3.00 to 9.00. Since 1.00 had been used to represent the response “vote in all elections” a score of 3.00 represented a frequent voter. 2.00 represented voting ‘in some elections’ or ‘from time to time’ so values of 4.00, 5.00, and 6.00 were grouped together to symbolize the occasional voter. Finally, ‘never’ voting received a score of 3.00 so values of 7.00, 8.00, and 9.00 were clustered together to signify an infrequent or nonvoter.

would not have voted without the online option decreases with age. Although data indicates that young people use online voting less, it may be that Internet ballots have potential to encourage some young noncommittal voters to participate electorally. More research is needed to determine if this is the case.

Overall, however, data indicates that those who report voting “frequently” are most likely to be receptive to casting a ballot online. This group appears to be older, committed voters. Despite these findings, the fact that many young reported nonvoters say that they voted because of Internet ballots merits further investigation. While the trend could certainly be that frequent older voters are the highest users and most drawn to the method of online voting, it might also appeal to some noncommitted voters, particularly young ones.

Analysis of a special national survey of Canadian electors produces similar findings regarding the potential of Internet voting to encourage the participation of young people. Taking all electors into account, 53 % of respondents indicated agreement with the statement “If Internet voting were available I would be more likely to vote in elections.” Evaluating agreement with this statement by age shows that young people especially say they would be more likely to cast a ballot if they could do so online, offering nearly double the support of other cohorts.¹⁹ While young people may merely be “saying” they will be more likely to participate, with no intended follow-through, consistent response patterns in these two surveys suggests there may be something to the fact that the youngest segment of the electorate expresses overwhelmingly (especially comparative to other age groups) that Internet ballots would promote their electoral participation. Again, the fact that their rate of use is lower than other age groups may be linked to their weak inclination to participate and does not mean that online voting is not a motivating factor in promoting the electoral involvement of young people (Pammett and LeDuc 2003).

Impact on Candidates and the Campaign

Aside from its impact on electors and turnout in advance polls, the introduction of Internet voting in Markham has also affected candidates and the nature of the campaign. 38 of a potential 44 candidates completed a voluntary survey following the election to shed light on the incorporation of Internet voting in the electoral process.²⁰ 78 % of candidates surveyed said they believed the presence of Internet voting in the advance polls affected the campaign. Explaining this impact their comments centered on three main aspects: turnout, accessibility and convenience, and shortening of the campaign. A majority of candidates expressed noting an

¹⁹ This data comes from a different survey, which includes an oversample of youth aged 18–26 from across Canada collected by Delvinia.

²⁰ This survey was carried out by and is the property of Delvinia.

increase in participation while canvassing, which they attributed to Internet voting. Some observed that online ballots were particularly useful in promoting the youth vote, especially for those young people away at school. Many other comments mentioned the accessibility and convenience of online ballots and how being able to vote when 'busy' or 'away' provided an opportunity of involvement for electors who might otherwise have abstained. Finally, some made comments about how online voting shortened the campaign given the large number of voters that chose to vote by Internet in the advance polls. Candidates observed that some campaign information went out too late, since when canvassing they encountered many constituents who had already voted.

Candidates were specifically asked to recount how many people they encountered while campaigning that reported already having voted and how many of these voters indicated they had cast online ballots. About 80 % of candidates said they did connect with online voters while canvassing or carrying out other campaign-related activities. Notably, over 40 % reported having encountered 10 or more online voters during the campaign period. The fact that advance poll voting in Markham is up substantially from pre-Internet voting levels and that candidates came in contact with so many electors who had already cast online ballots suggests that Internet voting has an impact on the campaign, particularly with respect to informing, canvassing, and mobilizing voters. It is interesting that more candidates did not comment on campaign changes, but instead focused on the issue of turnout and the positive effect they observed.

While Internet voting may not have a large effect on turnout, or even a marginal effect in all elections, it is telling that so many candidates emphasized that Internet voting had an observable impact on participation, notably because they rationalize it makes the voting process more accessible for certain groups of electors (e.g., those away, students at college or university, and those too busy with work or family obligations to vote at a traditional poll). Evidence from the capital city of Nova Scotia, Halifax, suggests that Internet voting also shortened its election campaign, with many municipal candidates reporting the need to get information out to electors much sooner (Goodman 2010). Additional research is needed to more fully explore the impact of Internet voting on the campaign and candidate functions during the campaign, particularly with respect to advance polls. If the changes to advance turnout in Markham and the feedback from this survey are any indication, Internet voting has potential to positively impact participation and create a shorter, more top-heavy campaign, whereby the first few weeks could become more important than the last, depending on the number of Internet voters.

Conclusion

Overall, looking at the case of Markham and some other Ontario municipalities where relevant, several observations are apparent. First, middle-aged and older electors who have committed voting records are the most likely to make use of

Internet voting. Similarly, Internet voting is most likely to attract committed voters. These findings, however, should not be taken as evidence that Internet voting has no positive effect on turnout. Though frequent voters may be most receptive to Internet voting, findings suggest that online ballots encourage some infrequent/nonvoters to participate, notably young people. More evidence is needed, but turnout statistics suggest that in many cases the *initial* extension of online ballots can have a positive impact on electoral participation, even if reported committed voters cast a large portion of those ballots.

Third, there is evidence to suggest that the youngest infrequent/nonvoters can be drawn into the electoral process through the extension of online ballots. Despite the fact that this group votes at the lowest rates and is least likely to make use of Internet voting generally, the largest portion of those that are attracted to participate electorally through Internet voting come from the 18 to 24 age group. Though voting by Internet is by no means a systemic fix for apathy or other social and political causes of nonvoting, and the numbers are small, there does seem to be some potential for engagement among less committed voters, particularly young people. Given that the habit of voting now seems to be developing later in life, if at all, the promise of engaging some young people in the electoral process earlier is hopeful, especially if it could establish voting as a custom for future elections.

Finally, candidate commentary suggests that when Internet voting is offered in advance polls the campaign is shortened and therefore, the need to get information out becomes more important at the outset of the campaign. In situations where Internet ballots are offered in advance polls this could mean that the first few weeks of a campaign turn out to be the most important, whereas the last few weeks become significantly less so. Furthermore, a majority of candidates stressed that the option of online ballots seemed to encourage participation. Although it is anecdotal, this offers support that Internet ballots can positively impact voting turnout.

On the whole, the findings of this article are mostly favorable for the use of Internet voting as an alternative voting method in elections, but more research is needed to refine conclusions and solidify results. Analysis highlights popular usage patterns, especially among older voters who report being less Internet savvy. It also presents evidence that online voting has potential to encourage some nonvoters to take part, notably the youngest nonvoters. Furthermore, findings suggest that although online ballots are not a broad-based solution for turnout decline, electoral participation can experience modest increases when they are made available. These increases are likely the result of the enhanced accessibility and convenience offered by remote electronic voting methods. While condensing the campaign may or may not be taken as a positive influence, there are many other electronic mediums that have penetrated electoral politics and are currently transforming the ways in which traditional campaigns are run (e.g., Twitter, Facebook, and YouTube). The advent of Internet voting is consistent with the breakthrough of other technologies and Web applications in politics and as such may be a welcome addition to the electoral arena for many electors. There is much to be learnt about the extension of Internet voting, but some initial results suggest it is a useful complementary voting method to offer in elections.

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