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Internet Voting: Will Communities Decide?

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Abstract. Internet voting is being adopted by some jurisdictions internationally, although its widespread acceptance has not taken hold. In Canada, for example, approximately 60 municipalities in Ontario and Nova Scotia have adopted online ballots for municipal (city) elections. In one major Canadian city, an extensive process of engaging citizens in a discussion about the merits of Internet voting occurred before the proposal to adopt Internet voting went forward for consideration to elected representatives on City Council. This paper considers potential methods for communities to help shape and influence the decision as to whether Internet voting will be adopted. In particular, a case study will be presented of the use of the public-involvement method of a Citizen Jury to deliberate on the question of whether Internet voting should be adopted. It is argued that because considerations other than public opinion, such as the interests of stakeholders and the influence of mass and online media in the framing of issues, will continue to affect the opinions of elected representatives, community-informatics theorists and practitioners should develop innovative methods of ensuring that the voice of citizens can be meaningfully incorporated into the decision as to whether Internet voting will be adopted.

Introduction

This paper considers potential methods for communities to help shape and influence the decision as to whether Internet voting will be adopted. A case study will be presented of the use of the public-involvement method of a Citizen Jury to deliberate on the question of whether Internet voting should be adopted. It is argued that because considerations other than public opinion, such as the interests of stakeholders and the influence of mass and online media in the framing of issues, will continue to affect the opinions of elected representatives, community-informatics theorists and practitioners should develop innovative methods of ensuring that the voice of citizens can be meaningfully incorporated into the decision as to whether Internet voting will be adopted.

Internet voting in Canada and beyond

Internet voting is being adopted by some jurisdictions internationally. Estonia was the first to adopt a binding vote using the Internet (Madise and Martens 2006). However, widespread acceptance has not taken hold. In Canada, for example, Internet voting for public elections is now being used by cities and towns across Canada. Approximately 60 municipalities in Ontario and Nova Scotia have adopted online ballot system for municipal (city) elections. However, the majority of cities in Canada have not adopted Internet voting.

The governance of Canada is based on federalism, whereby each of the 10 provinces must approve legislation allowing that province's cities and towns to experiment with or implement Internet voting. So far, five provinces (Ontario, British Columbia, Alberta, Nova

Scotia, and New Brunswick) have approved such enabling legislation. The city of Sudbury in Ontario, which has about 100,000 voters, for example, has approved Internet voting for the city, beginning in 2014. The city government of British Columbia's largest city, Vancouver, proposed Internet voting for its elections, but rather than approving this proposal, has set up an expert committee to study the concept of Internet voting (Elections BC 2011).

Much hope is held out for Internet voting, because it carries with it the promise of new access to democratic process (Norris 2005). For example, Internet voting is often argued to be a method for increasing voter turnout, although such increases do not always occur (Alvarez & Hall, 2008). In Canada, voter was 73.1 per cent in the 2011 federal election (Elections Canada 2013). We can consider an example of online voting in a country with an even higher level of voter turnout. Italy had a voting turnout of 75.19 per cent in the parliamentary elections in 2013 – and 80.54 per cent in the previous election in 2008 (IDEA 2013). *Nel maggio 2013, i cittadini di Martignano e Melpignano nella regione del Salento, nel tacco dello stivale nel sud Italia, hanno votato in un'elezione in cui solo una opzione e-voting è stato fornito agli elettori.* In May 2013, the citizens of Martignano and Melpignano in the region of Salento, in the heel of the boot in southern Italy, voted in an election in which only an e-voting option was provided to voters (Ricotti 2013). The question on the ballot was to advise elected representatives on whether to amalgamate their governance with other towns with up to 5,000 citizens, in an attempt to reduce public spending by cutting the number of municipalities and provinces and, it is hoped, administrative costs. This e-voting project was funded by Italy's Ministry of Interior and through the research and development efforts of Professor Marco Mancarella, a scholar at l'Università del Salento.

In the e-voting project in Salento, voters needed a hardcopy form of identification and physically signed a register. Voters then selected their choice on a ballot appearing on a touchscreen, after which a paper receipt was printed and held within the machine. The paper receipts were for the use of possible post-election challenges to the result, in which case a hand count could be carried out. The e-voting system was also equipped with a Braille system and audio support, allowing blind or visually impaired voters to use the system.

The Salento example differed in two important ways from the Edmonton case (from Canada), to be discussed. First, the Salento case did not offer voters the possibility of voting using the traditional hardcopy method. Second, the Italian e-voting system used a system of *precinct online voting*, in which voters must report to the polling station at which they are registered. The other two systems using are *polling place online voting* (by which voters may report to any polling station) and *kiosk online voting* (which involves setting up polls in locations that are convenient for voters, including shopping centres). In Canada the voting system was designed for use with the Internet, that is, wherever the Internet could be accessed. This is known as *remote Internet voting.* These two important characteristics of the Canadian case – the lack of a hardcopy and the remote nature of the system proposed – will be important for understanding the ultimate fate of the Canadian project, because legislators saw these characteristics as detracting from security and voter privacy.

Involving the public about whether to proceed with Internet voting

In Edmonton, Alberta, a major Canadian city, an extensive process of engaging citizens in a discussion about the merits of Internet voting occurred before the proposal to adopt Internet voting went forward for consideration to elected representatives on City Council. The City government worked with a university institute to plan and carry out a public-involvement project

that asked citizens to make their best recommendation about whether Internet voting should be implemented in the next city election. The Centre for Public Involvement at the University of Alberta provides leadership in understanding and applying public-involvement ideas, practices, and technologies for citizen participation and deliberation. It is a partnership funded together by the University of Alberta and the City of Edmonton. The Edmonton Citizens Jury on Internet Voting 2012 brought together 17 citizen participants who met for 20 hours on the weekend of 23 to 25 November 2012 to consider and provide a verdict on the following question on behalf of all citizens of Edmonton: "Should the City of Edmonton adopt Internet voting as an option for future general elections?"

Citizen Juries have been used in jurisdictions around the world to address issues in which meaningful and extended deliberations by citizens is seen as important for achieving some level of consensus in the larger population before legislators make a decision. For potentially contentious questions with broad importance for citizens, they hold the promise of providing elected representatives with the informed opinion of engaged and informed citizens. The final decision, however, usually remains with elected representatives. To understand the nature of the citizen jury as a method of determining the public will, it is helpful to consider the "ladder of citizen participation" (Arnstein 1969). The ladder was an early expression of a continuum of public involvement or other terms used by theorists and practitioners, such as citizen participation, public participation, citizen engagement, or citizen involvement. The ladder features eight rungs, with progressively more citizen authority implied in the process as one "climbs" the ladder. "Manipulation" and "therapy," which Arnstein argued represented attempts by elected representatives or administrators to dress up what she called nonparticipation, gives way further up the ladder to "information," "consultation," and placation," which she categorized as tokenism. In the uppermost category, which she called citizen power, is to be found the rungs of "partnership," "delegated power," and "citizen control."

The ladder of citizen participation is similar in form and substance to the "spectrum of public participation" devised by the International Association for Public Participation (IAP2) and widely used by public-involvement practitioners in Canada. The steps in the IAP2 spectrum are "inform," "consult," "involve," "collaborate," and "empower," with more delegatory power accorded to citizens as one moves from left to right (International Association for Public Participation 2012). The spectrum assumes that as the relative impact of a decision increases, the chosen method of public involvement should be found to the more participatory "right" end of the spectrum. The Citizen Jury focused on *public deliberation*, meaning the direct involvement of citizens in making decisions on behalf of society after due consideration of alternative courses of action and using rational methods of analysis (Gastil and Levine 2005). Such citizen events are particularly useful for complex and significant public issues that require the application of personal values.

The project team for the Citizen Jury included researchers, engagement practitioners, and City of Edmonton administrators. A research committee – scholars from the University of Alberta, Carleton University, and the University of British Columbia – oversaw the research component of the project. The expert witnesses were a diverse group that included prominent scholars in elections studies and computer security, industry representatives, and government election administrators, including the Chief Electoral Officer from the Province of British Columbia. The witnesses were asked to provide evidence-based, balanced information on the topic of Internet voting and were selected by the CPI research team in consultation with researchers and policy analysts from Elections Canada, the Canadian election authority. In addition to expert witnesses, a comprehensive *Issue Guide* was developed for use by the jurors to support broad and deep learning on the topic of Internet voting.

An advisory committee consisting of researchers, practitioners, and administrators meet each week during the project to give direction and suggestions as the Citizen Jury was formed and

then carried out its work. As part of the community-development mandate of the project, there were also community-service learners (undergraduate and graduate students), as well as observers from Elections Canada and Elections British Columbia.

Arrangements were made in advance to ensure that senior municipal administrators and elected representatives were committed to the idea of not only bringing the Citizen Jury together but also hearing and responding to the verdict and whatever recommendations the Jury saw fit to draft. In fact, in a significant signal of her confidence in the Citizen Jury, the City Clerk, who has the responsibility of overseeing municipal elections in Edmonton, committed in advance that if the Citizen Jury's verdict was to be "yes," she would proceed with a positive recommendation to implement voting to City Council. If the Citizen Jury's verdict were to have been "no," she stated that she would have provided City Council only with information, unaccompanied by a positive recommendation.

Selecting participants for the Citizen Jury

Appointing citizens to a public-deliberation event such as a Citizen Jury is a key component of the design and eventual success of the project. As Davies et al. 2005) points out, "the more intensively an issue is subject to discussion, the less extensive will be the number of individuals capable of engaging in that discussion" (601). Selection also reflects the social framing of the event, because it provides participants with the initial indications of how the structure and meaning of the event will be shaped during the deliberation process. Four categories of selection methods that have been used in similar public deliberative processes around the world are: (1) election, (2) random selection, (3) purposive selection, and (4) volunteerism. The Citizen Jury was formed using a combination of the second and third of these, random selection and purposive selection, with stratification according to demographic and attitudinal characteristics of the larger population of the city.

So what where the results of the selection process? The project had the aim of constituting a Citizen Jury that would be representative of the City of Edmonton's population in terms of two major characteristics: demography and public opinion. In terms of **demography**, the selection of the Citizen Jury had targets for gender, age, educational attainment, ethnic groups, disability, families with children, income, and geography. The targets for demography were set using Statistics Canada and City of Edmonton census data. As shown in Table 1, the Citizen Jury reached most, but not all of its demographic targets. For example, the targets for gender were to have 9 women and 9 men; the Citizen Jury eventually settled at 17 members, with 9 men and 8 women. The Citizen Jury was considered to have reached its target in terms of gender. However, the target of having 7 jurors represent families that included children in the home was not reached, because the actual number of jurors in this category was only 3.

Table 1: Demographic Targets Met for Recruitment

	TARGET	ACTUAL	MET
Gender (M/F)	9, 9	9, 8	Yes
Age groups (3)	5, 7, 7	4, 4, 9	Two out of three
Education levels (3)	8, 5, 5	6, 7, 4	Yes
Ethnic groups (4)	2, 2, 1, 14	1, 2, 3, 14	Yes
Disability	3	6	Yes
With children	7	3	No
Income (3)	9, 5, 3	5, 7, 3	Two out of three
Wards (12)	12	8	Two-thirds

In terms of **public opinion**, the selection of the Citizen Jury had targets for several attitudes on a number of relevant issues related to Internet voting, such as trust in municipal government, whether politicians were seen to value public opinion, and so on. The targets for public opinion were set using a telephone survey commissioned by the Citizen Jury project. As shown in Table 2, the Citizen Jury reached most, but not all of its demographic targets. For example, 67 per cent of both the general public and the members of the Citizen Jury rated their willingness to use Internet voting as "a lot." However, while 72 per cent of the public indicated that the highest level of confidence in using a computer, only 56 per cent of the Citizen Jury members rated their level of confidence at that level.

Table 2: Attitudes of Jurors: Citizen Efficacy and Internet Voting – Actual Composition

	NOT MUCH	SOME	A LOT
Trust in municipal government	11% (24%)	33% (33%)	50% (41%)
Politicians care about my opinion	6% (38%)	39% (32%)	50% (29%)
I am well qualified to participate	6% (28%)	11% (32%)	78% (38%)
Would use Internet voting	17% (28%)	11% (4%)	67% (67%)
Confident voting online	11% (27%)	33% (18%)	50% (55%)
Confident using a computer	11% (25%)	11% (19%)	72% (56%)
Tax dollars for Internet voting	6% (28%)	33% (27%)	56% (43%)
Ready for Internet voting	0% (23%)	11% (30%)	83% (46%)
Vote must be private	6% (9%)	6% (12%)	83% (77%)
Internet access before voting	22% (17%)	17% (26%)	56% (56%)
Anti-fraud	6% (4%)	0% (13%)	89% (81%)
Cost must be worthwhile	6% (10%)	0% (23%)	89% (65%)

Much attention was given to ensuring that the Citizen Jury "looked and sounded" like the City of Edmonton in terms of both demography and opinion. Note that the goal was to attain a Citizen Jury that represented the demography and opinion of the 800,000 citizens of the City of

Edmonton, and not to achieve an equal membership on both sides of the question. The reason for this was that the philosophy of the Citizen Jury was to create a "mini-public" that represented the deliberative process that would have occurred for all citizens in the city, if all citizens were given the opportunities of time and space to do so.

What the Citizen Jury decided

The verdict of the Citizen Jury was clear. After 20 hears of learning about the advantages and disadvantages of Internet voting, hearing from expert witnesses, asking questions of the witnesses, and deliberating among themselves, the Citizen Jury voted yes to adopt Internet voting as an option for future general elections, with 16 of the 17 jurors in favors of this option. The Citizen Jury also provided elected representatives and senior administrators with a number of recommendations associated with the decision. For example, they recommended that open-source software be used for the Internet voting system. The result of the Citizen Jury process was announced in the mass media and through social media immediately after the result was reached. The City Clerk carried out her commitment to take a comprehensive and compelling case in favour of Internet voting to City Council for consideration.

Conclusion: Beyond public opinion

As it happened, Edmonton City Council voted on 6 February 2013 against the recommendation from the City Clerk, supplemented by the support of the Citizen Jury, to implement a plan that would have allowed citizens to vote using the Internet, in advance polls only, as part of the 2013 municipal election. In their public discussions, City Council took account of the verdict and recommendations of the Citizen Jury. For example, after the Internet voting proposal had been concluded, a councilor immediately successfully made a motion to increase in the days and locations at which advanced polls would be available in the election. This motion could be interpreted as an attempt to address one of the points made by the Citizen Jury, which was that Internet voting should be adopted in part to expand opportunities to vote. Councilors seemed to be persuaded that the democratic value of transparency could potentially be infringed by Internet voting. An example was provided in the public discussion of a single voter influencing other voters within the privacy of a home. One councilor expressed the opinion that the proposal if voted on as proposed by the City Clerk would be rejected. He revised the resolution before Council to limit Internet voting to "special ballots" only, that is, for voters who could document a physical condition that precluded them from travelling to the polling place. Even that limited proposal, which would have accounted for perhaps less than 1,000 voters, was rejected strongly by a vote of 11 to 2.

It is clear from the Edmonton case that considerations other than informed public opinion, such as the interests of stakeholders and the influence of mass and online media in the framing of issues, will continue to affect the opinions of elected representatives. There were concerns and objections regarding Internet voting that were raised by stakeholders outside of the Citizen Jury process which included access for non-users of the Internet, privacy and secrecy of the ballot, auditability (challenges to the result), threats of hacking, and fraud.

Community-informatics theorists and practitioners should continue to develop innovative methods of ensuring that the voice of citizens can be meaningfully incorporated into important public decisions such as whether Internet voting will be adopted. For example, the Centre for Public Involvement is beginning to explore the possibility of using machine learning, to receive and respond to the thousands of social media messages that a public-involvement project

generates. This could eventually allow the City of Edmonton to understand, and then respond to, the opinions and insights of citizens in the age of social media.

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