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Public Engagement with Internet Voting in Edmonton: Design, Outcomes, and Challenges to Deliberative Models

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Public Engagement with Internet Voting in Edmonton: Design, Outcomes, and Challenges to Deliberative Models

Abstract

In September 2012, the City of Edmonton launched a four-month strategy to engage a range of citizens in the development of a policy proposal for the use of Internet voting in civic elections. A variety of initiatives were implemented, including public opinions surveys, roundtable advisory meetings with seniors and other stakeholder, and a mock "Jellybean" online election to test the technology. At the core of the public involvement campaign was a Citizens' Jury – a deliberative forum which engaged a group of citizens, demographically and attitudinally representative of the city's population, in assessment of Internet voting and the development of recommendations to city council. While the Jury reached a verdict supportive of Internet voting, policymakers in Edmonton rejected the policy proposal. In light of the Edmonton experience, we highlight factors that contribute to the ineffectiveness of deliberative experiments and discuss some challenges for public participation at the local level.

Keywords

Citizens Juries, Public Deliberation, Internet Voting, Methods of Public Participation, Local Politics

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In recent years, governments have sought to increase citizen participation in decision-making. Part of this trend has involved the adoption of deliberative forums such as citizens' juries, citizens' panels, citizens' assemblies, deliberative polling, consensus conferences, and participatory budgeting. Public deliberation is generally considered an effective mechanism for involving citizens directly in decision-making on contested sociopolitical issues that require the negotiation of competing viewpoints held by the public (Gutmann & Thompson, 2004; Fishkin, 2009). Deliberation constitutes an alternative to the instrumental rationality of modern political systems and aggregative, "vote-centric" models of democracy (Chambers, 2003). There are strong normative expectations that the emphasis on communicative rationality in this consensus-based approach can enhance the quality of collective decision-making by enabling participants to focus on developing viable policy options (Dryzek, 1994, 2000; Fishkin, 1995; Habermas 1996). While there is a plethora of theoretical perspectives on the so-called deliberative turn in democratic theory, some deliberative democrats have also called for testing and legitimization of deliberative discourse in political interaction and actual public processes (Habermas 1996; Bohman, 1996; Dryzek, 2000; Chambers, 2003; Gutmann & Thompson, 2004). In Canada, a number of public deliberation initiatives have been implemented in recent years at both provincial and municipal levels of government. Provincially, the most publicized events were the two Citizens' Assemblies on electoral reform in British Columbia and Ontario (Fournier et al., 2011; Rose, 2007). Deliberative engagement has also taken place at the municipal level, with some notable examples including participatory budgeting by Toronto Community Housing (Lerner & Duarte-Laudon, 2010) and similar initiatives in Guelph (Pinnington, Lerner, & Schugurensky, 2009), Montreal (Patsias, Latendresse, & Bherer, 2012), and Edmonton (Mao & Adria, 2013).

Although Internet voting has been frequently perceived as controversial given concerns about cybersecurity (Jones & Simons, 2012; Pieters & Consoli, 2009; Simons & Jones, 2012), municipal governments in Canada, which have introduced online ballots, have not sought to engage citizens in the consideration and vetting of such policy proposals. The City of Edmonton is an exception to this trend, undertaking a rigorous public involvement campaign from September to December 2012 to evaluate the possibility of introducing online ballots in municipal and school board elections. The city implemented four complementary participatory initiatives with varying degrees of public impact: 1) a Citizens' Jury to evaluate the policy proposal; 2) a mock election to test the security of online voting technology; 3) a public opinion survey to gauge the citizens' readiness to accept the policy change and their intent to make use of it; and 4) roundtable advisory meetings to solicit feedback from the general public and other groups.

The initiative sought to achieve both breadth and depth of public participation by utilizing diverse participatory tools to assess the proposed policy change. Its significance is strengthened by the inclusion of a deliberative forum to bring citizens directly into the policy process, as opposed to merely enabling their involvement though information or consultation.

In this article, we examine the most novel component of this participation plan, the Citizens' Jury, as a case study to illustrate some challenges faced by deliberative models for public engagement at the local level. Although public deliberation fosters greater individual and collective participation, as well as decisions that are reflective of a community's shared values, the use of deliberative forums in decision-making at the local and provincial level in Canada has often been ineffective in terms of linking outcomes to tangible action, as demonstrated by the Citizens Assemblies in Ontario, British Columbia (Rose, 2007; LeDuc, 2011; Warren & Pearse, 2008), and more recently Prince Edward County (Prince Edward County, 2013). In the case of Edmonton's Internet voting initiative, there was good reason to expect a greater citizen impact on the decision-making process since city administration aimed to ensure not only that the general public's information needs were met, but also that members of the public were directly involved in deliberation and delivered a "verdict" on the issue. Although deliberative democratic theory has emphasized tensions between representative and participatory governance models, some recent analyses have indicated that the best participatory designs and outcomes of collective decision-making are achieved when public participation operates in synergy with representation and administration (Bherer & Breux, 2012; Fung, 2006). The guiding principle for design of engagement mechanisms in the Edmonton case was that direct citizen participation in policy-making regarding Internet voting should not be seen as an alternative to political representation or technical expertise, but as complementary. The subsequent decision by Edmonton City Council to reject the recommendations of the Citizens' Jury by voting against the policy proposal, in spite of the wide public acceptance of online ballots, rendered the initiative moot and clearly highlighted tensions between the two governance models.

By placing this case study in the context of deliberative democratic theory and models of citizen engagement we aim to enhance knowledge of deliberative experiments at the micro level that have often been understudied and underpublicized (MacKenzie & Warren, 2012). Both critics and supporters of deliberative democratic theory have emphasized the need for more empirical research to test whether theoretical expectations have been met in practice and whether there are actual benefits of public deliberation for individuals and

communities (Chambers, 2003; Delli Carpini, Cook, & Jacobs, 2004; Fung, 2007). The analysis of deliberative mini-public events can indicate particular problems in the design and outcomes of public deliberation, including deliberants' knowledge deficit, framing biases, the impact of vested interests, and the issue of linking citizens' decisions to tangible action and policy change. It can also highlight more general concerns voiced by deliberative democrats such as tensions between political realities of communities and normative standards of deliberative democratic theory and concerns about how the scarce political resources of citizens should be best allocated and maximized (Mackenzie & Warren, 2012). On a more positive note, the lessons learnt from the Edmonton case can improve our understanding of design and outcomes of participatory mechanisms implemented in practice and, indirectly, to a more theoretically oriented project of developing an encompassing typology of such mechanisms. Finally, the case study is relevant to the emerging scholarship on the topic of Internet voting, particularly regarding which methods might be considered to more fully engage members of the public in evaluation of this controversial issue.

The article proceeds in five sections. First, we identify factors that contribute to the limited public engagement with Internet voting policy in Canada. Next, we discuss the characteristics and value of public deliberation vis-à-vis other participatory models in order to contextualize and situate the Edmonton approach. Third, we explain the methods of the study and the data collection process. Fourth, we discuss the different components of Edmonton's public involvement strategy, particularly the design and outcomes of a Citizens' Jury process. Finally, the paper concludes with a discussion of challenges remaining for deliberative public engagement, the implications of this case as standard setting for public participation in other Canadian communities considering the adoption of Internet voting, and some lessons learned for deliberative practice.

Public Involvement with Internet voting

Despite the fact that Internet voting is generally perceived as a citizen-centered service change that could potentially improve electoral participation (Goodman, 2014), most governments have hesitated to engage citizens in vetting Internet voting proposals (Goodman & Pammett, 2014). Public participation in such proposals can increase the certainty that electors will be supportive of the policy change. It is also mandated by the need to design Internet voting models appropriate for particular jurisdictions given that unique contextual factors impact citizens' and governments willingness to accept Internet voting (Pammett & Goodman, 2013). Citizen participation is a crucial aspect of digital policy change

in other areas such as open government, and, more generally, as part of a trend toward e-democracy (Francoli, 2011). Finally, public participation is normatively desirable when the goal is to develop policies that are reflective of shared public values and priorities (Goodin, 2007).

In a Canadian context, we have identified a few reasons for the failure to engage the public with Internet voting policy proposals. First, lack of public involvement prior to implementation may be attributed to the controversial nature of the issue. Internet voting remains a hotly contested issue that is lobbied by industry and organized interest groups. By engaging the public early on in the consideration process, governments open themselves up to a great deal of debate. Alternatively, consulting citizens may be a means of avoiding controversy. For instance, the rationale for Edmonton's public involvement initiative was that city administrators hoped to avoid controversy by carefully studying public attitudes and engaging citizens in the policy process (Kennedy, 2013).

Second, it is widely believed that Internet voting is a highly technical topic and experts may best explain some elements such as security. Policymakers have traditionally sought policy advice on such issues from technical experts, rather than involving citizens in technology assessment exercises. This trend, however, is changing as there have been a number of more recent initiatives to engage Canadians in deliberation on controversial science and technology issues, including the 2001 nationwide deliberative engagement on xenotransplantation (Einsiedel, 2002) and two deliberative forums on the topic of human tissue bio-banking in 2007 and 2009 (O'Doherty & Burgess, 2008; 2013; Burgess, O'Doherty, & Secko, 2008). The need to engage citizens in techno-scientific decision-making comes from the realization that experts often adhere to norms and values that are not shared by the public, and policymakers face the challenge of reconciling pluralistic value sets in regulatory frameworks (O'Doherty & Einsiedel, 2013). The shift towards citizen participation in techno-scientific policy ultimately aims to democratize technology development by removing hegemonic control of the design process from privileged actors (Feenberg, 1999; Sclove, 1999).

Third, financial considerations and resources are important for local government, as comprehensive public participation initiatives tend to be costly. The time necessary to carry out such a process is also an issue, especially since changes to the electoral process require the passage of appropriate by-laws and other regulations by specific deadlines. Municipal governments may also lack the expertise to develop innovative public engagement tools. This was clearly the case with Edmonton, where the University of Alberta's Centre for Public

Involvement was commissioned to design the Internet voting engagement strategy.

Participation Models and the Value of Public Deliberation

Although not everyone agrees that direct citizen participation is normatively desirable, there has been no shortage of talk about increasing institutional possibilities for public participation (Fung, 2006; Lukensmeyer & Torres, 2006; Philips & Orsini, 2002; Sheedy, 2008; Woodford & Preston, 2013). Two opposing models of citizen engagement are identified in the scholarly literature: "top-down" (government-led) participation and "bottom-up" (citizen-led) participation. While the former is generally perceived as deficient due to the degree of control exercised by the sponsoring institution, bottom-up approaches frequently provide better opportunities for empowering citizens and improving transparency and accountability in policy decisions. When assessing citizen-led participation, however, it is important to differentiate between lobbying efforts of citizen groups and methods that seek to neutralize vested interests by engaging a broader range of citizens, such as public deliberation (Crosby et al., 2006). Nonetheless, direct participation remains a rather complex issue with a range of institutional possibilities concerning the degree of openness of a participatory process, modes of communication and decision, and effects on policy or administrative decisions (Fung, 2006).

Public participation is also considered a contested analytical category and there have been numerous attempts to categorize the plethora of engagement situations and methods. Most typologies focus primarily on the question of what forms participation should take, rather than on concerns about its organization and governance (Abelson et al., 2003; Rowe & Frewer, 2005; Wakeford, 2002). The term "participation" has been used too broadly in the literature and perceived as something of intrinsic value regardless of intended outcomes and methods used to achieve these outcomes (Jasanoff, 2003). Furthermore, empirical experiments have highlighted that participation is not necessarily *a priori* welcomed by citizens, particularly in cases of upstream engagement when participants are reluctant to perceive their voices as representative of the entire public (Felt & Fochler, 2008).

A particularly useful typology of public engagement activity based on the directionality of information flows was developed by Rowe and Frewer (2005), who use "public engagement" as an overarching term to describe three types of engagement mechanisms - public communication, public consultation, and public

participation. In public communication, information is conveyed from the sponsors of the initiative (e.g., a policy-setting organization) to the general public and there is no public involvement per se, as there are no mechanisms to record and evaluate feedback. Public consultation is characterized by an inverse directionality of information flow, from the public to the sponsor, and public opinion on the issue is simply conveyed to the sponsor. By contrast, public participation is a dialogical activity in which both the sponsor and members of the public are open to negotiation and possibly changing their positions. This type of engagement activity can contribute to ensuring that pertinent information from relevant sources is transferred "(with minimal information loss) to the other parties, with the efficient processing of that information by the receivers (the sponsors and participants) and the *combining* of it into an accurate composite" (Rowe & Frewer, 2005, p. 263).

There are a number of benefits that make the use of deliberative approaches for public engagement normatively desirable. Deliberative forums are inclusive and can enhance traditional information exchange models (e.g., opinion polls, public hearings, public commentary) since they enable participants to consider multiple, diverse viewpoints, find common ground, realize a shared understanding of the underlying issues, and develop more substantive policy solutions (Gastil, 2008). They also help increase the legitimacy of decision-making, reduce conflict, build competent and responsible citizens, and include underrepresented groups and minorities in the political process (Sheedy, 2008). Public deliberation can improve traditional representative governance and is well-suited for the consideration of complex policy proposals since it brings together informed citizens in a focused deliberation to make decisions that are acceptable to all participants involved (Abelson et al., 2003; Crosby et al., 2006). Nonetheless, determining the type of situations in which the use of deliberative mini-publics is appropriate remains a challenge given that citizens in contemporary democratic systems have limited time and resources available for public participation (MacKenzie & Warren, 2012).

The practice of public participation has shown a growing tendency to move beyond "consultation" approaches toward direct citizen participation and deliberative public engagement. Of the many models that provide analytical frameworks, the IAP2's *Spectrum of Public Participation* provides a categorization that has been adopted by a number of Canadian municipalities. The cities of Burlington and Guelph, for example, committed to this spectrum in developing their overall public engagement strategies (Chuong, Walton, & Maksimowski, 2012). We draw upon this framework to highlight the varied aspects of Edmonton's public engagement initiative in Table 1 below. Whereas

traditional approaches to public participation, which are commonly used with Internet voting initiatives, fall under the "*Inform*" category, or occasionally the "*Consult*" component, the breadth of Edmonton's approach touches upon the participatory options in four of the five groups listed in the IAP2 Spectrum, incorporating citizens from the Edmonton public and beyond. In particular, the city sought to *collaborate* with Edmonton citizens through the use of a citizens' jury that enabled the public to make recommendations directly to policy-makers.

Table 1
IAP2 Spectrum of Public Participation

	Low Level of Public Impact				**High Level of Public Impact**
	INFORM	**CONSULT**	**INVOLVE**	**COLABORATE**	**EMPOWER**
Public Participation Goal:	Provide the public with balanced and objective information to assist them in understanding the problems, alternatives and /or solutions.	Obtain public feedback on analysis alternatives and/or decisions.	Work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	Partner with the public in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.	Place final decision-making in the hands of the public.
Promise to the Public:	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for direct advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.
Example Tools:	Fact sheets Websites Open houses	Public comment Focus groups Surveys Public meetings	Workshops Deliberate polling	Citizen advisory committees Consensus-building Participatory decision-making	Citizens juries Ballots Delegated decision

Methods

Participant observation was used to collect information on elections and Internet voting operations in select jurisdictions and key government officials, election administrators, and experts were interviewed with semi-structured questionnaires. Additionally, for this article, unstructured interviews were conducted by phone between January 2013 and May 2014 with government officials working in the areas of elections and research with knowledge of Internet voting and consultation practices and with city councillors who participated in the vote to reject the Internet voting policy proposal. Nuanced details and explanatory insight regarding the Edmonton case is provided through the first author's direct involvement in the design and execution of Edmonton's public involvement strategy, and observation of all jury deliberation sessions. Finally, our analysis draws on data from attitudinal surveys conducted during selection and recruitment of participants in the citizens' jury process, a public opinion survey of Edmonton residents, and pre- and post- deliberation questionnaires of jury participants. The authors developed all questionnaires in collaboration with three other scholars on the Citizens' Jury Research Committee. Questions probed respondents' attitudes toward Internet voting, likelihood of future use, perceived readiness of the Edmonton public in an election context, confidence in technology, voting histories, demographic information, and other questions relating to public consultation.

Design and Outcomes of the Public Involvement Strategy

Edmonton's public involvement strategy was developed in collaboration with the University of Alberta's Centre for Public Involvement (CPI). A Research Committee of scholars from the Universities of Alberta, Carleton, and McMaster was recruited to help design the process and to devise survey instruments. Committee members were selected based on their expertise in Internet voting, electoral participation, or local politics. One member also prepared an *Issues Guide* that was used as an information resource for Jury members and roundtable participants. An Advisory Committee was also formed to oversee the design and implementation of the Citizens' Jury process. Membership included professors, municipal administrators, other government representatives, and practitioners.

This collaboration brought a range of expertise to the process design, methods, and data collection instruments. Municipal officials shared knowledge of urban politics and the election process in Alberta, whereas scholars and practitioners offered specific knowledge relating to public engagement, public opinion

research, or Internet voting. Furthermore, city administration probed the opinions of Edmonton Public School Board members and enlisted their support for a 2013 Internet voting pilot. Officials also worked with other municipalities, particularly the City of St. Albert and Strathcona County, and Alberta's Ministry of Municipal Affairs to promote the creation of a supportive legislative framework for the policy change. The counsel provided by these actors and institutions gave the process additional credibility and improved its comprehensiveness.

Inclusive Framework

The public involvement strategy included four levels of participation focused on gathering input from the general public, stakeholder groups (such as seniors), and from a deliberative mini-public representative of Edmonton's population, Table 2. First, any citizen with access to the Internet could partake in the online survey, available through the City of Edmonton and University of Alberta websites from September 1 to December 9, 2012. This portion focused on direct consultation with Edmonton residents, *informing* them about the process and *seeking their opinion* on the potential use of Internet voting in Edmonton. Second, the mock election held from October 22, 2012 to November 2, 2012 to test the Internet voting technology also sought to *consult* with the public by having them engage with the system and evaluate it. The election was open to anyone over the age of 18 with citizenship documentation. Participants did not have to be Edmonton residents, or reside in Canada. This widened the net by which the public could partake in the policy consideration process. Third, the advisory roundtable meeting carried out in November and December offered a slightly greater public impact, *involving* Edmonton residents, especially seniors, and *working with them directly* to ensure concerns and ideas would be incorporated into the report to council. Finally, the Citizens' Jury *brought citizens directly into the policy making process* by tasking them to make recommendations to elected representatives.

Assessing the level of public impact, this deliberative forum allowed for citizens to be *partners* in the policy-making process by offering advice about how to proceed. Though ideally Citizens' Juries are participatory tools designed to *empower* citizens, empowerment can only be achieved with the promise that elected officials will implement the jury decision. This did not happen since city council voted against the Jury's verdict to proceed with Internet voting. However, administrators promised to take Jurors' recommendations into consideration when developing future proposals for the adoption of Internet voting. While this decision weakens the legitimacy of the jury process, it successfully facilitated citizen *collaboration* by looking to the Jury group for direct advice and committing to review their recommendations.

Table 2
Participation tools used in Edmonton and their intended public participation goals

Tool	Target group	Public participation goal
Online survey	Edmonton residents over the age of 18	Inform Consult
Mock online election	Any person over the age of 18 with citizenship identification, worldwide	Consult
Advisory roundtables	Edmonton residents Special focus on seniors	Involve
Citizens' Jury	Mini-public demographically and attitudinally representative of the Edmonton population	Collaborate

The Citizens' Jury

The Citizens' Jury process brought together policy-makers, experts, and lay citizens to deliberate on the potential introduction of Internet voting in Edmonton elections. Its design as a technology assessment exercise was informed by the "deliberative turn" in science and technology policy and placed emphasis on shared decision-making (Callon, Lascoumes, & Barthe, 2009). While the method of citizens' juries has previously been used in Canada for technology assessment, deliberative experiments of this kind have been primarily conducted in academic settings and were more or less disconnected from the actual policy-making process. This disconnect between deliberative fori and tangible action was noticeable in the citizens' juries conducted during a nationwide consultation on regulatory issues arising from xenotransplantation in 2001 (Einsiedel, 2002) and as part of a research project evaluating methods for citizen engagement in priority-setting for health technology assessment (Menon & Stafinski, 2008). In both cases, citizens were asked to form an opinion and provide policy advice concerning the introduction of a particular technology, but process outcomes were not directly linked to decision-making (e.g. the juries' recommendations were not delivered to a body of elected representatives). By contrast, the novelty of the Edmonton Citizens' Jury lies in the fact that the city administration entrusted citizens to vet an Internet voting policy proposal and committed to presenting their recommendations directly to a decision-making body –city council.

Jury Composition

The Jury was assembled by bringing together a group of Edmonton citizens who were representative of the city in socio-demographic and geographic terms, and also reflective of the community's values and attitudes toward Internet voting. Specifically, a stratified random selection method was used to ensure that the Jury composition was a close approximation of the city population. Targeted recruitment was also undertaken to ensure the inclusion of representatives of visible minorities and other underrepresented groups. Between November 6 to 12, 2012, potential participants were screened for demographic characteristics and attitudes through a survey (n = 1349) administered by EKOS Probit, an Ottawa-based company providing survey research and recruitment services. Survey respondents were chosen through a list of randomly generated landline and cell phone numbers and contacted using an automated calling method. The demographic filters included age, sex, ethnicity, level of education, presence of a disability, children in the household, personal income, and municipal ward. Attitudinal questions probed trust in municipal government, internal and external efficacy, voting histories, likelihood of using Internet voting, confidence in online ballots and technology, and whether Internet voting was perceived as a good use of tax dollars. The strategic goal for juror selection was to avoid the inclusion of those with vested interests in the outcome of the jury process. Therefore, efforts were made to select participants who were open to learning and potentially changing their minds about online voting, rather than staunch proponents or critics who may be likely to advance a particular agenda and not fully participate.

Potential jurors were selected based on information collected through this process and were sent a package explaining eligibility, expectations, and process details. To be eligible to serve as a juror, prospective participants were required to be eligible to vote in Edmonton, attend all Jury sessions, and could not be employed with the city. Potential jurors were mailed an additional welcome letter and package once a reasonable composition was determined. Eighteen jurors were selected and initially confirmed participation, however, one juror opted out just before the deliberation, and a decision was made to proceed with seventeen participants. The entire process included about 20 hours of work, for which jurors were given an honorarium of $400 dollars. Travel assistance and childcare were provided if needed, and meals were supplied throughout the Jury weekend.

For the most part, the jurors reflected the demographic and geographic composition of Edmonton's population. Due to the small size of the group, it was very difficult to achieve a perfect balance. The fact that one juror withdrew from participation also affected the Jury's final composition. Overall, Aboriginal

citizens, persons with disabilities, those aged 50+, and those with college education were slightly over-represented. At the same time, those falling into the lowest income bracket ($0-$29,999), those with high school education or less, households with children, and those aged 30-49 remained somewhat underrepresented, Table 3. In addition, although representation was sought from all twelve of Edmonton's municipal wards, the final jury composition had representation from eight.

Table 3
Demographic characteristics of Jury members and the Edmonton population

Demographic trait		**Citizens' Jury**	**Edmonton population**
Age group	18-29	22% (4 Jurors)	25.35%
	30-49	22% (4 Jurors)	36.82%
	50+	50% (9 Jurors)	37.83%
Sex	Male	44% (8 Jurors)	49.85%
	Female	50% (9 Jurors)	50.15%
Education	High school or less	33% (6 Jurors)	43.43%
	College or apprenticeship	39% (7 Jurors)	30.06%
	University certificate or degree	22% (4 Jurors)	26.51%
Ethnicity	South Asian or Chinese	6% (1 Juror)	11.57%
	Aboriginal, Inuit, Métis, or First Nation	17% (3 Jurors)	5.28%
	Other visible minority	11% (2 Jurors)	11.34%
	Not a visible minority	78% (14 Jurors)	77.09%
Disability (activity difficulties/ reduction)		28% (5 Jurors)	17.60%
Households with children		17% (3 Jurors)	41%
Personal income	$0-29,999	28% (5 Jurors)	50.96%
	$29,999-59,999	39% (7 Jurors)	30.01%
	$59,999+	19% (3 Jurors)	19.03%
Wards 1-12		Jurors from 8/12 wards	12 wards

With respect to attitudes, jurors reported higher levels of trust in local government than the general population, stronger faith in their personal capacity to have a say, and greater confidence in the responsiveness of political institutions, as evidenced in Table 4. The fact that participants expressed trust in local politics and the belief that political institutions are receptive to the public means that they likely had a greater faith in the jury process, perhaps explaining why they were inclined to

participate in the first place. Similarly, persons with strong senses of internal efficacy, a belief that their voice matters, were more inclined to participate. This belief may have meant jurors were more likely to feel confident than members of the general public that they personally could navigate voting online, making them more inclined to support the addition of the technology. Selected jurors were also more likely to express confidence in computers, agree that the cost of implementing Internet voting would be worthwhile, that its deployment was a worthy use of tax dollars, and that Edmonton was ready for Internet voting. These latter considerations may have meant selected jurors were inclined to support the policy change more so than the general public. On the other hand, there were exact or very close matches in attitudes between jurors and the Edmonton public on key issues such as reported access to the Internet, likelihood of Internet voting use, and opinions regarding cyber security and fraud prevention, which also constitute good reasons to support or oppose an inclusion of Internet voting option in municipal elections.

It is worth noting that the larger difference in support among jurors and the Edmonton public regarding whether the city was ready for Internet voting did not necessarily mean that jurors supported the policy change, but merely that they felt the community was ready for the deployment of the technology. Attitudes about the likelihood of using Internet voting are likely a better predictor of personal support for the technology. Confidence in online ballots is another indication of acceptance. There was a more equal balance of opinion between jurors and the general public for these two items.

Table 4

Attitudinal characteristics of Jury members and the Edmonton population

Attitude	**Not much**	**Some**	**A lot**
Trust in municipal government	11% (24%)	33% (33%)	50% (41%)
External efficacy	6% (38%)	39% (32%)	50% (29%)
Internal efficacy	6% (28%)	11% (32%)	78% (38%)
Likelihood of using Internet voting	17% (28%)	11% (4%)	67% (67%)
Confidence in online ballots	11% (27%)	33% (18%)	50% (55%)
Confidence in computers	11% (25%)	11% (19%)	72% (56%)
Use tax dollars for Internet voting	6% (28%)	33% (37%)	56% (43%)
Edmonton ready for Internet voting	0% (23%)	11% (30%)	83% (46%)
Vote must be private and anonymous	6% (9%)	6% (12%)	83% (77%)
Access to Internet	22% (17%)	17% (26%)	56% (56%)
Fraud prevention methods needed	6% (4%)	0% (13%)	89% (81%)
Cost ($) worthwhile	6% (10%)	0% (23%)	89% (65%)

Note. Percentage in brackets denotes responses by Edmonton residents.

Jury Process

The Jury convened from November 23 to 25, 2012 to deliberate on the following charge question: *Should the City of Edmonton adopt Internet voting as an option in future general elections*? By posing this question, the Jury was tasked with evaluating the viability and usability of this technology in the specific context of Edmonton, rather than an appraisal of Internet voting *per se*. The process was moderated by two independent facilitators and included presentations by expert witnesses such as the Chief Electoral Officer of British Columbia, scholars in election studies and e-democracy, computer security experts, industry representatives, and municipal administrators from across the country. Both the facilitators and expert witnesses were instructed by the organizers to refrain from openly taking sides on the issue.

The expert witnesses were carefully selected by the Citizens' Jury Research and Advisory Committees to prevent faming biases (e.g., emphasizing certain issues and aspects of Internet voting at the expense of others), and, subsequently, a heavily biased deliberation outcome that would have raised concerns about the legitimacy of the process. Expert witnesses delivered short, informative presentations on the use of Internet voting in elections, computer security issues, and practical policy concerns of online ballots, and were available for questions throughout jury process. The city project team also delivered a presentation on the policy proposal and the outcomes of the "Jellybean" mock election. The city had hired an independent third party to hack the Internet voting system used during the mock election but the hacking was unsuccessful. Furthermore, an independent audit of the Jellybean election was conducted by the cybersecurity consulting and risk management company Seccuris. Detailed information on this security assessment was communicated to the Jury and was subsequently included in the report to city council (City of Edmonton, 2013).

In addition, Jurors were provided with an *Issues Guide* on the topic of Internet voting, which included references to academic and popular sources, and were encouraged to complete their own independent research. The jury process was organized thematically, with presentations on major issues, including cybersecurity, the experiences of Canadian municipalities and other international jurisdictions with Internet voting, impact on voter turnout, and regulatory issues, among other topics. Presentations were followed by time for structured deliberations. On the last day, the jurors evaluated the evidence presented in an extended closed session, moderated by both facilitators. The Jury reached a 'yes'

verdict on the charge question and further developed recommendations to city administration and council on how proceed, Table 5. While this final session was closed to media, city officials, and expert witnesses, it was observed by researchers and representatives of Elections Canada and Elections BC to ensure that procedures were followed and norms of deliberation were met.

Table 5
The Edmonton Citizens' Jury recommendations

	Jury Recommendations
1.	Develop a registration system that is simple, quick, and easy for users.
2.	Adopt an online voting system that has capability to accommodate smart phone and tablet use.
3.	Conduct further research and evaluation to measure success of Internet voting and improve e-government.
4.	Use propriety software as a short-term solution, but work to develop an open-source software system for future elections (in collaboration with the University of Alberta).
5.	Improve accessibility of the voting process for electors (e.g., offering public Internet voting stations that are accessible; multiple language options for online registration and online voting, including Braille; and a telephone line or link that would allow voters to speak with a support agent for assistance).
6.	Develop a robust communications and education strategy that outlines the security risks of Internet voting and how they are addressed.
7	Include telephone voting as an additional voting option alongside Internet voting by 2017.
8	Create measures to improve security and ensure privacy of the vote.
9.	Adopt Internet voting in the advanced voting portion of the election only, for a period of 14 consecutive days prior to election day.

The Jury Verdict

The final Jury verdict favored introducing online ballots as an additional voting method in Edmonton municipal elections. Initially, sixteen jurors voted in favor, and one against the Internet voting proposal, however, after further deliberation, the verdict was achieved by consensus. The dissenting juror indicated that, although he opposed Internet voting in principle for reasons such as security concerns and some voters' lack of computer skills, he still believed it was the way of the future and was willing to support the policy change.

Jurors cited several rationales for recommending the adoption of Internet voting. First, it was recognized that Internet voting improves accessibility, especially for persons with disabilities, the elderly, and others with limited mobility. Second, the deployment of Internet voting was perceived to provide added convenience for electors absent from the city during election time. Similarly, the post-deliberation survey results showed that 70% of the jurors indicated both accessibility and convenience as their major reasons for choosing Internet voting. Third, jurors pointed to the evidence of technical competence and Edmontonians' readiness to use Internet voting. Finally, there was a shared vision of Edmonton's leadership as the first municipality in the province to adopt digital technology for voting in elections.

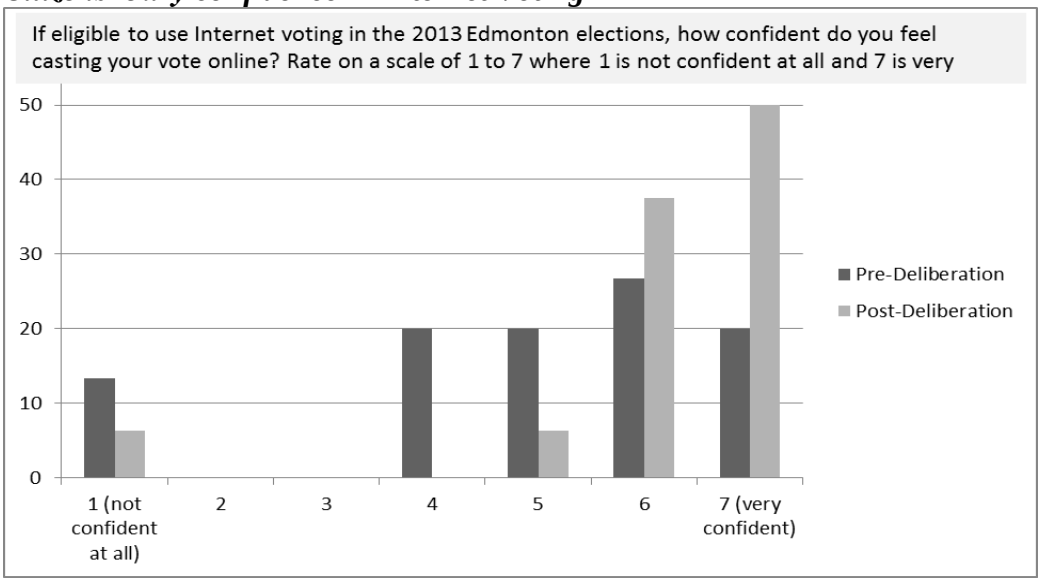
Arguments opposing Internet voting were also articulated in the deliberation. For example, jurors agreed with the assessment of the computer security expert, who provided testimony that despite considerable advances in the security of online voting systems, there were still significant risks. The expert recommended the use of Internet voting as an additional option in municipal elections, but not in large-scale, high-stake national elections. Given this evaluation, the jurors did not recommend online voting for provincial and federal elections. In addition, there were concerns that citizens with limited computer skills would not be able to make use of the added convenience of Internet voting. One juror in particular, believed that electors in his age group (age 50+) might feel more comfortable with telephone voting. Jurors learned from the expert presentations that a combination of telephone and Internet voting had been offered in Nova Scotia. The group decided to include a recommendation to the city to include telephone voting as an additional voting option alongside Internet voting by 2017.

Overall, jurors' confidence in Internet voting increased as a result of the deliberation. For example, while 58.8% expressed security concerns in the pre-deliberation survey, this percentage decreased to 11.8% in the post-deliberation questionnaire. Furthermore, juror responses suggest they felt more confident casting their vote online as a result of the jury process as shown in Figure 1 below. While before deliberation 20% of the jurors said they were 'very confident' to vote online, this number increased to 50% after deliberation. Similarly, the number of jurors who reported being 'confident' increased from 26.7% to 36.5%. By contrast, the number of jurors who were 'not confident at all' decreased from 13.3% to 6.3%.

More importantly, there seemed to be convergence of opinions since the standard deviation of individual opinions in the group was lower after deliberation – decreasing from 1.9 to 1.5. This change in jurors' attitudes is not surprising given

that deliberation is a consensus-oriented approach that greatly reduces polarization between participants. Yet, some deliberative theorists remain skeptical about *enclave deliberation*, which occurs in groups of like-minded individuals, particularly its tendency to increase intra-group homogeneity and move group members towards more extreme viewpoints on the issue (Sunstein, 2000; Schkade, Sunstein, & Hastie, 2010). There is little evidence to suggest that extreme group polarization may have taken place in the case of Edmonton Citizens' Jury. Although the group showed more favorable attitudes after deliberation, survey data indicates that expert testimony and learning on the issue contributed to the jurors' increased confidence in Internet voting. For example, 58.8% of the jurors rated the expert testimony as very helpful for making a decision on Internet voting, while 17.6% considered it helpful and another 17.6% as somewhat helpful.[1] Ratings were provided on a scale of 1 to 7 with 1 being 'not helpful at all' and 7 'very helpful,' producing a mean of 6.44. Interestingly, another citizens' jury experiment on an environmental issue in Australia similarly concluded that jurors' attitudes changed mostly due to learning and internal reflection during the information phase of deliberation, rather than during the subsequent formal discussions (Goodin & Niemeyer, 2003).

Figure 1
Citizens' Jury confidence in Internet Voting



[1] Responses to this survey question were provided by 16 jurors. One juror did not provide a rating.

Finally, it is worth noting that most jurors believed the views on online voting presented during deliberation were fairly balanced. In the post-deliberation questionnaire, jurors were asked to rate how balanced the information on Internet voting presented during the Jury process was on a scale of 1 to 7 where 1 was 'not balanced at all' and 7 was 'very balanced.'[2] Results showed a mean of 5.47 and a standard deviation of 1.17.[3]

Impact of the Citizens' Jury

Municipal administrators showed confidence in the Citizens' Jury process and its verdict by taking the recommendations to city council and advising that Edmonton proceed with an Internet voting pilot in the 2013 municipal elections. During the Jury event, the Edmonton City Clerk made a formal commitment to follow through with the Jury's verdict by reporting to the media that she would recommend council proceed with the Internet voting proposal only if the Citizens' Jury was supportive of this policy change in its final verdict. In case of an unsupportive verdict, the Clerk indicated she would present council with information about Internet voting and not a formal recommendation to adopt this policy option.

Rather surprisingly, a few months later councillors overruled the advice of both the Citizens' Jury and city administration. After extensive deliberation in a session on February 6, 2013, councillors voted 11-2 against the Internet voting proposal. Many considerations went into this decision, but one prominent factor was a presentation delivered at an Executive Committee meeting on January 28, 2013 by an Edmonton computer programmer, Chris Cates. The meeting was called after Cates requested to speak to council regarding the policy proposal. At the meeting, he reported having been able to vote twice in the "Jellybean" mock election, but refused to provide proof that he had done so.[4] Cates presented legitimate security concerns, many of which had been raised by computer scientists during the Jury process and considered by the jurors in their deliberations. Yet, he made security threats look much more tangible and imminent by insisting that the Internet voting system, which was tested in the mock election, had already been compromised. Interviews with some councilors suggests that Cates' allegations of casting a duplicate vote confirmed council's concerns and emphasized that more time was needed before adopting Internet

[2] In this context, "balanced" was defined as giving proper consideration to both arguments for and against the use of Internet voting.
[3] Percentages are as follows: 7 - 23.5%, 6 - 23.5%, 5 – 35.3%, 4 - 11.8%, 3 - 5.9%, 2 - 0%, 1 - 0%.
[4] Cates also wrote each member of council expressing his concerns and sent letters to editors in local media.

voting. Another concern expressed by some members of council was that online voting might entice people to vote who do not typically participate, which might sway the balance of power in a forthcoming election. Additionally, Cates openly credited his own testimony and lobbying efforts against online voting as a primary contributor to Edmonton City Council's decision to reject the proposal in official correspondence to Alberta's Minister of Municipal Affairs (Cates, 2013). Although council may have had other, political reasons for the rejection, it seems Cates' testimony may have had a particular influence.

Council's decision can be interpreted as disempowering citizens in the sense that elective representatives did not show trust in the ability of citizens to make a well-reasoned decision on the Internet voting policy proposal. Despite the fact that the Citizens' Jury facilitated a new level of collaboration between citizens and municipal government that brought citizens' voices into the policy-making process, the reluctance of elected officials in Edmonton to reaffirm the Jury verdict raised questions about whether they were truly committed to increasing public participation in decision-making (Kent, 2013).

Challenges to Deliberative Models

The outcome of the Edmonton Citizens' Jury experiment highlights several significant challenges to deliberative models for public engagement and imparts some lessons for future public participation practice at the local level. For one, it shows the importance of forging strong synergies and mutual learning between citizens, municipal administration, and elected representatives to ensure policy success of public deliberation. In particular, policymakers and elected representatives may lack knowledge of the normative validity of deliberation as a way of exercising "public reason." The involvement of decision-makers in the design and implementation of deliberative forums can greatly increase their knowledge of, and confidence in, the method of public deliberation as producing policy solutions that are truly reflective of public values. In the Edmonton case, senior administrators were involved collaboratively at all stages of the design and implementation of the public involvement campaign. For example, the Centre for Public Involvement, which implemented the Jury process, held weekly meetings with the City Internet Voting Project Team to provide progress updates and solicit feedback. City representatives were also included on the Jury Advisory Committee and members of the City Election Team had the opportunity to observe the jury process, with the exception of the closed sessions for structured deliberation. This enhanced collaboration helped increase city administration's trust in the procedural fairness of deliberation and the ability of citizens to make a

well-reasoned decision of the complex issue of Internet voting and their commitment to follow through with the citizens' recommendations.

The Edmonton public involvement strategy, however, failed to enlist the support of elected representatives prior to the implementation of the deliberative forum. There was no effort on the part of the organizing institution to educate councillors on the value of utilizing the citizens' jury method for decision-making on controversial policy issues. Furthermore, a decision was made not to invite council members to attend the deliberative forum for the reason of demonstrating impartiality. Finally, although an extensive report was prepared on the Citizens' Jury process, city administration presented council with only a two-page summary of the Jury's verdict and recommendations. This failure to educate councillors on the distinctive characteristics of the citizens' jury method vis-à-vis other public participation methods, its innovative use in the context of Internet voting policy, and to ensure their *a priori* commitment to follow through with the Citizens Jury's recommendation likely contributed to the final policy outcome. In future, additional information about the usefulness of citizens' juries and other deliberative bodies, and details regarding the specific approach used, would help educate elected representatives as to the value of public deliberation and the reliability of its findings. Decision-makers should be engaged early on in the process, at the stage of jury design and member selection, so that they have sufficient time for learning and are able to consider the issue at hand with full knowledge of the advantages of citizens' juries as a participatory and decision-making tool. Not surprisingly, the two Edmonton councillors who voted in favor of the Internet voting proposal were supporters of public engagement and had regularly attended public deliberation events in the city.

The Edmonton case also highlights some more general tensions between deliberative public participation and representative institutions and processes. Although in recent years local governments in Canada have increased institutional possibilities for citizen engagement and become more receptive toward deliberative models of participation, this openness to democratic innovation has not necessarily resulted in increased effectiveness in terms of policy outcomes. Elected representatives still have the final say in making policy decisions on issues such as Internet voting and are at liberty not to follow through with citizens' recommendations. The effectiveness of deliberative forums as a policy-making tool, therefore, is largely contingent upon the willingness of administrators and elected representatives to entrust citizens with decision-making authority.

One way to address this significant challenge is through a greater institutionalization of deliberative processes as a routine practice of the policy-making process. Although this has not yet happened in Canada, where citizens' juries and other deliberative forums have been largely conducted as academic experiments in deliberative democracy, at least several countries have passed laws to institutionalize deliberative participation. Citizens' juries, for example, are institutionalized as a decision-making tool in the State of Oregon. In 2011, the Oregon Legislature voted to permanently implement the Oregon Citizen Initiative Review (Oregon CIR). The CIR uses Citizens' Juries to deliberate on proposed ballot measures and develop recommendations to Oregon voters, which can help them understand better controversial and partisan issues (Thomson & Burall, 2011). Another example is the passage of a 2007 law in the Region of Tuscany in Italy that mandates deliberative participation in local and regional decision-making (Lewanski, 2013). Nonetheless, the success of these recent initiatives is yet to be evaluated. The institutionalization of deliberative models of public participation, and in what ways this might be accomplished, remains a rather complex issue that has not sufficiently been addressed by deliberative democratic theory and practice (Levine, Fung, & Gastil, 2005; Hartz-Karp & Briand, 2009).

Conclusion

Although the decision of Edmonton city council to reject the Jury's recommendations may be interpreted as a reassertion of traditional top-down monopolies of power vis-à-vis deliberative models of decision-making, there remain good reasons to suggest there was value to this deliberative forum. The Edmonton Citizens' Jury clearly demonstrated that citizens can play an important role in technology assessment on complex issues such as Internet voting and develop policy recommendations for elected representatives. In two and a half days, Jury participants tackled the topic of Internet voting and the issues surrounding it, producing nine well-reasoned recommendations about how it could potentially take shape in Edmonton. This example illustrates that lay persons, when involved in deliberation, are equally capable to weigh in on complex policy topics as elected representatives and bureaucrats. They, in fact, bring the additional benefit of the public perspective and an understanding of what they would hope to see in terms of election service changes and policy. The public too is best equipped to determine whether they would make use of the alternative voting method. Frequency of use is in large part a criterion for measuring the success of the policy change.

In the context of Internet voting initiatives, Edmonton constitutes an important precedent that has influenced local government efforts to engage the public in decision-making on the issue elsewhere. Based on the Edmonton experience, the City of Guelph undertook a public opinion survey in May 2013 about voting experiences to gauge public acceptance of Internet and telephone voting. In addition, Guelph commissioned the writing of a scholarly report for council and had an expert onsite for the official council vote to address questions or clarify misinformation (Labelle, 2013). The City of Newmarket similarly carried out a public opinion survey to gauge public acceptance of Internet voting in the fall of 2013. To avoid the pitfalls of Edmonton's public involvement initiative, Guelph further undertook steps to educate elected representatives on the value of citizen participation in decision-making on the issue. Notwithstanding its immediate impact on other Internet voting initiatives in Canada, however, the Edmonton case clearly highlights deficiencies and challenges that need to be overcome if deliberative models are to deliver the policy outcomes citizens hope for when they participate.

Finally, the case study we have examined here highlights one significant problem for deliberative practice, particularly that the fact that other formal and informal channels of political participation, such as direct participation or lobbying efforts of individual citizens and citizens groups, can have equal or greater impact in the public sphere. This is especially the case when elected officials, driven by political interests or other motivation, overlook the advantages of deliberative mechanisms as a tool for making better collective policy decisions. The Edmonton case, therefore, demonstrates that the impact of deliberative engagement is highly context-dependent and varied, and that mobilizing support for deliberative forums at one level of government may not necessarily ensure that deliberation will be linked to tangible outcomes. Certainly, this speaks to the earlier argument about how further institutionalization of deliberative forums and their decisions would be crucial to their policy success. It also suggests that both scholars and practitioners should accept that deliberative efforts do have uncertain outcomes and failure is an inevitable aspect of deliberative practice.

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