It’s Complicated: Exploring Facebook’s Potential for Deliberative Public Engagement on Sustainability Policy

by

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Abstract
The explosion of low-cost interactive digital tools like Facebook has prompted governments around the world to experiment with online public engagement. However, the media’s rapidly changing nature, combined with limited research in the field, means that little is known about how social media impacts who participates, how they participate and what is contributed in these online public engagement activities. To address these questions, the researcher convened over 500 people in a Facebook-based deliberation about transportation policy for the City of Vancouver, Canada, which resulted in recommendations that were considered by the City in drafting a long-range plan. Two hypotheses are explored: (1) locating a deliberative public engagement on Facebook can address some key challenges of in-person deliberation, and (2) deliberative discourse can be cultivated within a social media environment. An analysis of Facebook’s affordances – access to publics, distributed time and space, collaboration and learning, cross-platform connectivity, and social character – suggests that its properties both improve and impede the deliberative qualities of public engagement such as demographic representativeness, frequency of participation and reflective opinion sharing. Measuring participant discourse according to criteria of deliberativeness – discussion coherence, disagreement, opinion justification, engagement, and equality – demonstrates that this case study fostered the individual role in deliberation such as topical coherence, justified opinions and equal access to the discussion. However, the e-deliberation was not as successful as hoped in eliciting group aspects of deliberation such as disagreement and engagement with one another’s contributions. Together, these investigations provide a cautious but optimistic view on social media for deliberative public engagement. The study concludes by pointing to the need for further attention in social media based deliberation to engagement process design, participant recruitment and discussion tool development.
Preface

This study was approved by The University of British Columbia Behavioural Research Ethics Board and assigned BREB number H11-01419.

A report on EVTF was submitted in fall 2011 to the City of Vancouver’s Transportation 2040 project team. This report can be accessed at http://talkvancouver.com/document/show/118
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Thank you to public engagement and public deliberation colleagues who gave early feedback on the project concept and to Dr. John Gastil who generously shared measures that informed EVTF participant surveys.

Greenest City Conversations colleagues provided highly valuable input into EVTF’s early definitions of deliberation, dialogue and public engagement. In particular, the author is thankful to Roy Bendor who collaborated on the survey instruments.

I am thankful for the funding support received from Social Sciences and Humanities Research Council, MITACS, the Pacific Institute for Climate Studies (PICS) and the City of Vancouver provided funding to the author for this project. EVTF is also funded by Greenest City Conversations (GCC), which is sponsored by GRAND NCE, PICS, BC Hydro, the City of Vancouver, and MITACS.

Lastly, the author is especially grateful to advisors Dr. John Robinson (UBC) and Dr. Alexandra Samuel (Emily Carr) who provided guidance and thoughtful feedback throughout the research process.
Dedication
This thesis is dedicated to six people who have played a pivotal role in helping me reach this milestone. To my mother Sharon Haas and father Paul Haas who have been unfailingly supportive of me in all respects, including loving me fully, financing my early and undergraduate education, instilling in me a robust work ethic, and demonstrating how to be of service to the greater good. To my mentors in the field of deliberative public engagement, Dr. Jack Blaney and Dr. Carolyn Lukensmeyer, I am thankful for the opportunity to have learned from your outstanding emotional presence, commitment to public service and innovative leadership to strengthen democracy. To my beloved husband Aaron Lyons, you are an inspiration and precious gift. And, to my unborn child, the completion of this thesis has much to do with your impending arrival, and the desires within these pages for a stronger democracy and sustainable world are dedicated to you and your generation.
1. Introduction: Exploring Vancouver’s Transportation Future in Facebook

Sustainability is a complex policy challenge that can benefit from participatory decision-making’s potential for integrating social values, eliciting knowledge that encompasses and extends beyond scientific and technical knowledge, involving multi-sectoral and multi-jurisdictional perspectives, and encouraging reflection on the tradeoffs inherent in most sustainability policy choices (Bulkeley & Mol, 2003; Lemos & Agrawal, 2006; Salter, Robinson, & Wiek, 2010; Salter et al., 2010). It can be a challenge though to involve large numbers of the public in these types of sustainability policy conversations, to reach beyond “the usual suspects” who participate, or to sustain conversation long enough to explore issues in the required breadth or depth. Online engagement methods may address some of these and other key challenges of public participation.

Social media is a promising tool for public participation in sustainability policy development because of its wide uptake by the public, interactive nature and low-financial cost. However, social media is an emerging field that is constantly reinventing itself. There are consequently more questions than answers about the viability of social media as a site of civic engagement.

Who participates in a social media based policy discussion? How do they participate? And what are the products of such engagement? These three questions shape my masters thesis research into Facebook and deliberative public engagement. These are also research questions of the project with which my research is affiliated, Greenest City Conversations (see below for details).

The aim of my work is to explore the viability of Facebook for deliberative public engagement. Facebook is the focus of my research because it is the most popular social media service in the western world; in Canada, over half of the population has an account on the site (Alexa, 2011). As such, it promises access to large numbers of the public, in a location and time of their convenience, and high degrees of user familiarity with the tool.
It is largely unknown however if these promises deliver for public policy deliberations. Additionally, the need to better understand Facebook and its potential for public engagement is motivated by increasing use by governments and government agencies to “engage” the public. One measure of this government-Facebook association is the over 45,000 people who “like” the Government on Facebook page. Facebook is therefore a rich ground for investigating new approaches for public engagement.

For the purposes of this research, it is important to define the deliberative aspects of public engagement. Public engagement is the act of specialists or decision-makers consulting, involving, collaborating with or empowering the public. When deliberative methods are used, the engagement includes representative participants, informed discussions, discovering and exploring differences, weighing of options, and producing a recommendation that will be considered in decision-making (Gastil, 2008; Lukensmeyer, Goldman, & Brigham, 2005; Rowe & Frewer, 2000).

To explore the implications of using Facebook as a venue for hosting deliberative public engagement, I designed, implemented and researched Exploring Vancouver’s Transportation Future (EVTF). Over 500 people participated in EVTF’s Facebook-based deliberation about transportation policy for the City of Vancouver, British Columbia, Canada. The June 2011 project had two phases, held over four weeks. In phase I, twelve groups of EVTF participants met asynchronously in small Facebook discussion groups to explore the best and worst aspects of commuting in Vancouver, key transportation issues, and to identify promising transportation strategies for the city. Each group voted for three top strategies to recommend to the City of Vancouver. The second phase was a public review of the groups’ transportation strategy recommendations. Anyone on Facebook could vote for, comment on and share these ideas, or add their own idea. The resulting recommendations and discussions were reported to and responded to by the City and are being considered in the drafting of a long-range transportation plan for Vancouver.

The EVTF experiment provides a foundation for investigating (1) Facebook’s affordances for public engagement and (2) the deliberative quality of a public policy
discussion hosted in the social network. These themes are the focus of two the chapters that follow this introduction, both of which explore the process of engagement, rather than an analysis of the transportation ideas discussed or recommended. The chapter on affordances (Chapter 2) examines how Facebook’s properties impact who participates, how they participate and what is contributed in public engagement activities. The chapter on participant discourse (Chapter 3) measures the existence and quality of deliberation among participants of a discussion about transportation in Vancouver. Together, these chapters provide insight into key considerations for hosting deliberative public engagement in social media. Readers should note that Chapters 2 and 3 are written to stand alone, as well as to form the basis of this thesis, and thus have some overlap with regards to describing EVTF context and methods.

EVTF is one of the first deliberative public engagement projects to be hosted within Facebook. Although EVTF is a new effort, this research builds on significant practices and scholarly histories of face-to-face and online public engagement. From a practical perspective, research on EVTF hopes to provide insight for decision-makers looking for a venue to host public deliberations and for leaders who are using Facebook and want to know more about its potential and limitations. To the academy, this research hopes to contribute an up-to-date evaluation of Facebook for online deliberative democracy projects. The findings of these works will also contribute to a larger research project on innovative public engagement on sustainability, Greenest City Conversations (see below).

1.1 Sustainability Policy and Public Engagement

Government-led public engagement on issues of sustainability has, until recently, trended towards providing information in order to change people's attitudes, beliefs, and subsequent individual behaviour (Gardner & Stern, 1996). The motivating force behind these “information deficit” approaches is the idea that the public are ill-equipped to make more sustainable decisions because they are ignorant of the issues (Bulkeley & Mol, 2003; Salter et al., 2010). Therefore, educating people about the issues and identifying options for individual action will lead to the implementation of environmental goals. However, decades of public education campaigns have failed to produce the desired
behavioural changes.

An alternative approach emphasizes engaging the public in meaningful discussions about sustainability. In these conversations, sustainability knowledge and commitment is not simply communicated in a one-way flow from a government to its citizens, but rather emerges from the discussions themselves. Thus, information and understanding emerge from an active process of reflection, negotiation and reevaluation by the public and experts. The goal of this kind of public engagement is to motivate people to generate their own views about the type of world they want to live in and to apply those views to collective behaviour preferences (such as policy) as well as individual behaviour (Robinson, 2003; Robinson & Tansey, 2006). This “civic model” for public participation posits that more inclusive decision-making both strengthens democracy and improves the outcomes of the process (Bulkeley & Mol, 2003).

When this civic model of engagement is applied to a decision-making process, one configuration is deliberative public engagement. Gastil (2006, 2008) defines deliberative public engagement as an official or quasi-official process where policymakers, content experts, and lay citizens work together on an issue of public concern, in which participating citizens carefully examine the issue(s), include and consider each other’s diverse points of view, weigh information and seek a well-reasoned solution.

There are many methodologies for deliberative public engagement, both in-person and online. An interesting congruence can be found between civic model of engagement described above and the principles of today’s ‘Web 2.0’ Internet. Web 2.0 is interactive, develops social relationships, broadly defines expertise, and encourages content production as well as consumption. Collaboration and interaction are the goals of Web 2.0, and, arguably, are also the goals of public participation on sustainability policy.

Moving public deliberation into online environments is also of interest because the Internet addresses some key challenges of face-to-face engagement methods. In an exploration of the theory and evidence of citizens deliberating online, Price (2009) says,
“Internet technologies have considerable appeal to adherents of deliberative theory and practice, in that they permit group interactions among geographically dispersed and diverse participants, potentially bringing far greater reach, reduced cost, and increased representation to exercises in deliberative democracy,” (p. 42). Other deliberative democracy scholars similarly point to logistical barriers of face-to-face engagement such as the ability to scale up to large numbers of participants (Fishkin, 1991; Friedman, 2006; Parkinson, 2003), achieve geographic representation over vast areas (Niemeyer, Ayirtman, & Hartz-Karp, 2008), provide low-cost mechanisms to meet regulatory requirements for public comment (Schlosberg & Dryzek, 2002) and offer access to diverse demographic populations (Ryfe, 2005).

There are concerns though about the use of Internet-based democratic deliberation, such as degrees of inclusion, unequal power among participants and between participants and conveners, lack of participant democratic skills, and civility in discussions. Other scholars suggest that experiments in online deliberation are producing encouraging results. (See the following papers for a discussion of these issues).

Salkin (2011) identifies four benefits and four disadvantages to using social media to engage the public in land use planning, which are also relevant to sustainability policy planning. The benefits are the ability to hear and share valuable information; possibility for network building among people with common interests; cost effectiveness of social media; and, the transparency provided by a real-time public record of the project. Disadvantages and potential concerns include the digital divide and fair access; the arguments that social networking is not a replacement for in person communication; and that online discussions must meet information laws; and, records must be archived and made available.

What remains unclear is the extent to which the concerns and benefits discussed above are present when the deliberation is hosted within social media. What is the effect of social media’s affordances on who participates, how they participate and what is said? What is the deliberative quality of public engagement hosted within a popular social
media venue like Facebook? These are important questions in the context of a pressing need to engage the public to identify solutions to common sustainability policy areas like transportation, energy production and consumption, or energy efficient buildings.

My research hypotheses are that (1) locating a deliberative public engagement on Facebook can address some key challenges of in-person deliberation, and (2) that deliberative discourse can be cultivated within social media-based public engagement.

1.2 Greenest City Conversations

EVTF is a part of Greenest City Conversations (GCC). GCC is an innovative, interdisciplinary and wide-scale research project aimed at developing multiple methods for public engagement on sustainability policies. The City of Vancouver is a key partner of GCC because it has embarked on an ambitious effort to become the greenest city in the world by 2020, partially achieved through citizen engagement.

GCC’s two main goals are (1) to facilitate discussion, solicit and analyze public attitudes and opinions on, and support for, a variety of sustainability policies; and (2) to provide a comprehensive understanding of the content and impacts (both qualitative and quantitative) of different modes of public engagement (“channels”). GCC will serve as a pilot project for potential future applications in other jurisdictions and at other scales.

The research aims of GCC are: How do different modes of interactive, large-scale public engagement impact Vancouver residents' and stakeholders' willingness to engage in discussion of, and support for collective action on sustainability (in the form of particular public policy and complementary citizen initiatives connected to the City of Vancouver’s Greenest City initiative)? In particular, GCC is examining how different modes of engagement (‘channels’) affect the amount and type of participation. It is also examining how different modes of engagement affect the views of participants with respect to certain Greenest City goals, concepts and proposed policies.

GCC is undertaking research in five different public engagement channels: social media,
mobile applications, ‘serious’ multiplayer touch games, performance art and public workshops supported with visualization. GCC channels are connected through an online hub of information about the project and a portal to the web presences of the various engagement pieces. Each channel is utilizing independent and comparative evaluation to discover insights for both for the City of Vancouver policy and for participation theory.

- **Social media.** In addition to EVTF’s examination of the viability of Facebook for public deliberation, the social media channel is researching message persistence within and across social media websites and GCC channels.

- **Mobile applications.** This research channel explores the development and use of mobile applications to facilitate youth-driven crowd-sourcing of sustainable behaviours via mobile-social networks.

- **'Serious' multiplayer touch games.** This channel is designing and evaluating a digital tabletop platform and a sustainability game.

- **Performance Art.** Four art events are being designed and delivered in Vancouver in order to conceptually explore deliberative, emergent and participatory approaches within artistic practices.

- **Public workshops** are being held using scenario generators and immersive visuals to evaluate the effectiveness of participatory workshops by mapping participant mental models about community energy.

Each GCC channel will collect data that will be analyzed for quantitative (‘who and how many participate?’) and qualitative (‘what kind of participation?’ and ‘to what degree?’) markers of engagement.
1.3 EVTF Methods

EVTF was designed according to best practices of face to face deliberation, articulated by Rowe and Frewer (2000) and learned through my practice of over ten years of leading public engagement exercises. The following table compares ten criteria for evaluating public participation methods with the design choices and implementation realities of EVTF (see Table 1). As the following papers focus primarily on EVTF’s small group Facebook discussions, the following table also concentrates on this phase.
<table>
<thead>
<tr>
<th>Public Acceptance Criteria</th>
<th>Criteria Essential for Effective Public Participation (Rowe &amp; Frewer, 2000)</th>
<th>EVTF Design Choices and Results</th>
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<tbody>
<tr>
<td><strong>Representativeness</strong></td>
<td>The people involved in the exercise should comprise a broadly representative sample of the population affected by the policy decision (also see J. S. Dryzek, 2001; Fung, 2003).</td>
<td>The goal of EVTF recruitment was to involve 400 people that reflect Vancouver’s commuting habits and demographics such as location of residence, age, language/ethnicity, gender, education and income. Outreach strategies and tools were developed to establish relationships with and encourage peer recruitment by organizations and influential people representing these constituencies. Demographics were tracked during the registration process and recruitment activities were adjusted accordingly. These practices are based on the work of AmericaSpeaks (Lukensmeyer et al., 2005), a global leader in large scale public engagement, with whom the researcher has extensive work experience. As is detailed in the following papers, participant demographics did not match those of Vancouver residents and Metro Vancouver commuters on a number of important measures. Results of the e-deliberations were reported with this caveat.</td>
</tr>
<tr>
<td><strong>Independence</strong></td>
<td>The deliberative exercise should be conducted in an independent (unbiased) way.</td>
<td>EVTF was presented to participants as a collaboration between the University of British Columbia and the City of Vancouver. The City influenced information materials and the purpose of the discussion. Almost all other decisions were made by the researcher, including participant selection, discussion process design, facilitation, and reporting of outcomes. Participants likely did not perceive the project to be independent of the City, although EVTF was fairly independent in practice. Nonetheless, the role of the City in being a “co-host” was essential to the credibility and influence of EVTF.</td>
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<tr>
<td>Criteria Essential for Effective Public Participation (Rowe &amp; Frewer, 2000)</td>
<td>EVTF Design Choices and Results</td>
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<td><strong>Early involvement</strong></td>
<td>EVTF was held at the start of the City’s efforts to develop a long-term transportation plan. It was one of a variety of public engagement projects held during the City’s “Listening and Learning” engagement during spring and summer 2011. Content of these public discussions was shaped by earlier public consultations for the Greenest City 2020. EVTF was held at an appropriate stage of policy development, a stage at which some basic strategies had been identified and to which participants could provide their preferences and priorities to help refine next steps.</td>
<td></td>
</tr>
<tr>
<td>The participants in the exercise should be involved as early as possible in the process, as soon as societal values become important to the development of policy.</td>
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<tr>
<td><strong>Influence</strong></td>
<td>The outcomes of EVTF had an opportunity to impact on policy as a result of preparatory negotiations with transportation staff who committed to responding to what they heard. Participants were promised influence in recruiting messages; the landing page said, “Results will inform the City of Vancouver’s Transportation Plan.” This is distinct from acting on the EVTF recommendations and is appropriate because EVTF was only one way of hearing from the public and EVTF’s participant demographics were not representative. Participants were provided evidence that their recommendations have the opportunity to impact on policy. Nineteen EVTF recommendations were presented to the City. Transportation planners responded to each recommendation in a four page document (see appendix D), that was emailed to all participants. As well, the City’s Transportation 2040 website promises, “City staff are now developing a draft Transportation Plan based on the input provided to date, as well as on-going engagement with stakeholder groups.”</td>
<td></td>
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<tr>
<td>The outcome of the procedure should have and be seen to have a genuine impact on policy.</td>
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### Criteria Essential for Effective Public Participation (Rowe & Frewer, 2000)

<table>
<thead>
<tr>
<th>Process Criteria</th>
<th>EVTF Design Choices and Results</th>
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<tr>
<td><strong>Transparency</strong></td>
<td>Anyone was able to participate prior to the project kick off (although participation was directed towards Vancouver residents and commuters). After discussion groups started and registration closed, the wider public was able to learn about the project via Facebook and the GCC website. Non participants were also able to sign up for email updates about the project, which described EVTF process, outcomes and anticipated next steps by the City. Participants’ experience of transparency was mixed. The process by which decisions were made during ETVF were explained but not available for inspection. For example, when votes were tallied, the final results were reported but not the raw data. The process by which the transportation plan will be drafted and finalized follows a similar form where the steps are communicated but the decisions are being made ‘behind the scenes’ with the exception of Council meetings on the subject.</td>
</tr>
<tr>
<td><strong>Resource accessibility</strong></td>
<td>EVTF participants were provided with information resources about the issue of deliberation and access to experts via an “ask a transport geek” question form embedded in the Facebook application. Participants had to provide their own material resources of computer and internet access. Time was a resource that was inadequately provided for, as many participants indicated they did not have sufficient time to participate fully.</td>
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Participants should have access to the appropriate resources to enable them to fulfill their role.
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<tr>
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<tr>
<td><strong>Task definition</strong>&lt;br&gt;The nature and scope of the participation task should be clearly defined.</td>
<td>EVTF scope, process and expectations of participants were communicated in e-deliberation application and through ongoing email communication. For example, emails to participants would often conclude with an overview of the process and upcoming next steps. However, the detailed nature of participation made it difficult for most participants to maintain their own understanding of EVTF’s procedures. Participants would sometimes post questions about the purpose of a particular stage of discussion. As well, participants mentioned in surveys that the amount of time required to fully participate was more than anticipated.</td>
</tr>
<tr>
<td><strong>Structured decision-making</strong>&lt;br&gt;The deliberative exercise should use appropriate mechanisms for structuring/displaying the process’ decision-making process.</td>
<td>EVTF’s path to decision-making was developed from the researcher’s practice of face-to-face deliberative democracy projects. The decision-making steps were communicated to participants via email and facilitator posts. EVTF facilitators and an online survey tool were essential mechanisms that supported decision-making.</td>
</tr>
<tr>
<td><strong>Cost effectiveness</strong>&lt;br&gt;The process should be cost effective from the point of view of the sponsors.</td>
<td>The City of Vancouver contributed a small portion of the financial and human resources required to host EVTF so it can be considered very cost effective from the view of the policy makers. In-kind contributions from the application developer and volunteer facilitators were essential to the success of EVTF.</td>
</tr>
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One additional criteria for effective public participation is the facilitator:

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<th>Criteria Essential for Effective Public Participation</th>
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<tbody>
<tr>
<td>Process Criteria</td>
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</tr>
<tr>
<td>Discussion Facilitator</td>
<td>Each EVTF discussion group had a dedicated facilitator whose role was to actively focus group discussions on the tasks and support a respectful discussion atmosphere while not taking a position on the issues. The ten volunteer facilitators (not including the researcher who facilitated two groups) spent about 30 minutes a day providing micro-interventions by engaging with specific posts and macro-interventions by summarizing the discussion to date.</td>
</tr>
<tr>
<td>Online forums require a trusted independent moderator/facilitator (Beierle, 2004; Coleman &amp; Gotze, 2001; Trénel, 2004).</td>
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</table>
1.4 A Dual Role

My role in EVTF was both as researcher and practitioner/facilitator. There is a potential for conflict between the goals and expectations of these two roles (Black, Burkhalter, Gastil, & Stromer-Galley, 2011). For example, researcher and practitioner Hartz-Karp (2007) describes herself as “walking a tightrope” between the roles, saying, “Naturally it is not possible for me to be completely objective in analyzing a process I had a large share in devising and executing. However, failing to report on the work in which I was involved would constitute a waste of years of experience and hard-won insight,” (p.8).

I have ten years of experience with convening deliberative public engagement projects, from the BC Citizens Assembly on Electoral Reform, to national American discussions on health care reform with AmericaSpeaks. These experiences enabled me to develop EVTF with practical knowledge of best practices and challenges of public engagement.

As a researcher of EVTF, I was interested in knowing how Facebook shaped the deliberative process. As a practitioner/facilitator, I was interested in ensuring the outcomes of the process were usable by the City of Vancouver, in order to both honour the time and effort contributed by participants and also to meet the best practice of influence (see above). These roles are at odds because I had a stake in the project ‘not failing’. I have endeavoured in my research to be reflexive about this dynamic, and to hold a critical analysis of my results.

1.5 Examining Affordances, Measuring Deliberation

This introduction briefly introduced the field of public engagement on sustainability policy, described the context of EVTF’s parent project - Greenest City Conversations – and provided an in-depth look at EVTF’s methods. The following two chapters pursue the question of whether Facebook is a viable location for deliberative public engagement on sustainability policy. Please note that a theoretical background of deliberative democracy and its expression in online venues is featured in Chapter 3, on deliberativeness. The chapter on affordances (Chapter 2) is presented first in order to
consider the viability of the venue before delving into the discourse specifics of EVTF.

Chapter 2 argues that Facebook’s affordances, or properties, are influential on the types of people, interactions and resulting ideas of a deliberative engagement in the social network. The chapter begins with a literature review followed by a description of EVTF. The bulk of the chapter identifies and examines the affordances of Facebook and the EVTF application. A discussion concludes the chapter, on the findings’ implications for government-led public policy conversations in social media environments.

Chapter 3 begins with a theoretical background of deliberative democracy and its expression in online venues. Next, details of the Facebook experiment are described including participant recruitment, engagement design, facilitation methods and decision-making processes. This methods section also describes the coding scheme used for analyzing the deliberative qualities of discussion content. Third, a demographic analysis of participants is presented. Having laid the groundwork, the chapter provides detailed results of the content analysis. I then discuss how the EVTF case study fostered the individual role in deliberation but was not as successful as hoped in eliciting deliberative exchanges among participants. The chapter concludes by pointing to the mixed quality of e-deliberation in EVTF and suggesting further attention to engagement process design, participant recruitment and technological development.

Finally, the conclusion offers participant and researcher observations about the strengths, weaknesses and areas of improvement for Facebook-based public engagement.

Together, this thesis provides a cautionary but optimistic view on social media for deliberative public engagement.
2 The Impact of Facebook Affordances on Government-led Public Engagement

2.1 Introduction

The explosion of low-cost interactive digital tools has prompted governments around the world to experiment with online public engagement methods. This experimentation is also fostered by a movement in Western governments towards “Gov 2.0” (O’Reilly, 2009), which is an interactive form of government that employs technology to respond with transparency, participation, collaboration, and innovation to today’s complex policy context. However, little is known about the strengths and limitations of government-public conversations within social media due to the fast changing nature of the tools themselves, evolving public expectations and still-developing rules frameworks for government social media presence.

Social network sites such as Facebook are being used at all levels of government in the Western World to communicate with the public. Social network sites are web-based services where individuals construct a public or semi-public profile within a bounded system and connect with others in their extended social network (boyd & Ellison, 2007). Founded in 2004, Facebook’s mission is, “Giving people the power to share and make the world more open and connected,” (Facebook, 2011a). Facebook ranks as the second most popular website in the world (Alexa, 2011), reaching 50.7% of both Canadians and Americans (Socialbakers, 2012b), thus offering unparalleled potential to reach the public in a place where they already spend time.

Government efforts to use digital engagement tools are partially a response to public demand. Internet users in Canada and the United States are actively engaging with civil life online. Recent research from the Pew Institute identifies a new class of Internet users as the “online government participatory class”: up to 23% of US internet users (Smith, 2010a) and 20.8% of Canadian internet users (Statistics Canada, 2010) communicate online with municipal, provincial and federal government, painting the internet as a
legitimate site for sustained civic participation. More than half (54%) of Canadians want more opportunities to engage with government online (Fleishman-Hillard, 2011).

The City of Vancouver, Canada, is a municipal government experimenting with a mix of online and in-person public engagement. The City worked with the public in 2010 and 2011 to develop a plan for becoming the greenest city in the world by the year 2020 using online brainstorming (crowdsourcing), online discussions, social media, public meetings, Open Space conferences and kitchen table discussions. Over 35,000 people were engaged with the Greenest City 2020 campaign, more than 9,500 of which were active participants via in-person events or online discussions (City of Vancouver, 2011). The result was a pastiche of public priorities and preferences, sorted and refined by City staff and community advisors into the Greenest City Action Plan. The Plan was passed by Vancouver City Council on June 2011. Importantly, many participants were enthusiastic about their experience, sharing statements like, “I'm seeing tangible outcomes from my participation which is remarkable and re-energizing,” (City of Vancouver, 2011).

The City of Vancouver’s approach to public engagement moves away from a typical ‘information deficit’ model that shapes government sustainability programs, towards a ‘civic model’. The information deficit model is based on the idea that the public are ill-equipped to make decisions because they are ignorant of the issues (Bulkeley & Mol, 2003; Robinson, 2004). Therefore, educating people about the issues and identifying options for individual action will lead to the implementation of environmental goals. However, decades of public education campaigns have failed to produce the desired changes in behaviour.

An alternative model of behaviour and civic change, one underlying the City of Vancouver’s Greenest City efforts, emphasizes public participation in meaningful discussions about sustainability. In these conversations, sustainability knowledge is not simply communicated in a one-way flow from the City to its citizens, but emerges through the discussions themselves. This civic model for public participation posits that more inclusive decision-making both strengthens democracy and improves the outcomes of the process (Bulkeley & Mol, 2003). Thus, information and understanding emerge
through an active process of reflection, negotiation and reevaluation by the public and experts. The goal of this kind of public engagement is to motivate people to generate their own views about the type of world they want to live in and to apply those views to collective behaviour preferences (such as policy) as well as individual behaviour (Robinson, 2003; Robinson & Tansey, 2006). The emergent nature of these discussions is congruent with the principles of today’s ‘Web 2.0’ Internet, which is interactive, develops social relationships, broadly defines expertise, and encourages the content production as well as consumption.

Deliberative democracy is one expression of the civic model of public engagement, which is an approach that emphasizes direct, participatory, and deliberative engagement of ordinary citizens in ongoing policy formation (J. Dryzek, 1990; Warren, 1992). Deliberative democracy theorists point to potential benefits such as greater knowledge, more reflective judgements, increased sense of political efficacy and an increase in the frequency of political action (Bohman, 1996; Cohen, 1997; Fishkin, 1995; Gastil, 2000). Empirical research has demonstrated exposure to diverse perspectives increases the political tolerance of deliberation participants and helps develop an understanding of opposing rationales (Fishkin, 1992; Mutz, 2002). A strategic rationale for deliberative democracy is that risky political endeavours can be dampened by building public support through a participative policy process (Leighninger, 2006). Fung and Wright (2003, p. 5) emphasize the notion that these methods seek to “deepen the ways in which ordinary people can effectively influence policies that shape their lives”.¹

In order to better understand the viability of Facebook for government-hosted deliberative public engagement in sustainability policy development, a research project was undertaken by the University of British Columbia in partnership with the transportation department of the City of Vancouver. Over 500 Vancouver-area residents and commuters participated in Exploring Vancouver’s Transportation Future (EVTF), a month-long Facebook e-deliberation resulting in recommendations that were considered in drafting

¹ Deliberation can overemphasize rational exchanges among participants and ignore dialogic goals such as deep policy exploration and identity formation, which are also required to effectively tackle sustainability policy (see for example Bendor, Haas Lyons, & Robinson, 2011).
the City’s transportation plan. EVTF is part of a multistakeholder research partnership known as Greenest City Conversations (GCC), which is investigating new methods of public participation in sustainability decision-making. GCC’s engagement channels are testing differences in who participates, how they participate and the impacts of participation such as how participants perceive the issues and how government responds to engagement outcomes (www.gcc.ubc.ca).

![Facebook.png](attachment:Facebook.png)

**Figure 2:** Exploring Vancouver’s Transportation Future (EVTF) Phase I landing page. Clicking "Let's Go" opened a new window outside of Facebook to request participant consent and administer an entry survey.

The affordances, or properties, of Facebook are of particular importance to understanding the viability of social media for government hosted public engagement. The term ‘affordance’ was first used by Gibson (1977) to define properties of objects that allow someone to act upon them. Norman integrated this concept into the field of human-computer-interaction (McGrenere & Ho, 2000) and further described affordances as:

“the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used ... When affordances are taken advantage of, the user knows what to do just by looking: no picture, label, or instruction needed,” (Norman, 1988, p. 9).
Norman’s pragmatic emphasis on perceived properties is essential for understanding how a user may interact with an object, or in this case, how Facebook and the EVTF application may ‘invite’ particular kinds of interactions by e-deliberation participants.

The affordances of information-communication-technology (ICT) have been defined in a taxonomy by Conole and Dyke (2004) as accessibility; speed of change; diversity; communication and collaboration; reflection; multimodality and non-linearity; risk, fragility and uncertainty; immediacy; monopolization; and, surveillance. On Web 2.0 social software tools in particular, McLoughlin and Lee (2007) point to four affordances: connectivity and social rapport; collaborative information discovery and sharing; content creation; and, knowledge and information aggregation and content modification. Facebook’s affordances for teaching and learning are described by Idris and Wang (2009) as pedagogical (innovative, motivational, multimedia, reflective); social (interactive, asynchronous and synchronous) and, technological (customisable, free, fast access). This research draws on the contributions of these theorists to explore five social media affordances and their implications for Facebook-based deliberative democracy exercises: access to publics, distributed time and space, collaboration and learning, cross-platform connectivity and social character. These five affordances were chosen because of their greatest relevance to using social media for deliberative public engagement on policy issues.

This chapter argues that Facebook affordances are influential on the types of people, ideas and impacts of a deliberative engagement in the social network. The following section describes the Facebook-based public e-deliberation co-hosted with the City of Vancouver. The affordances of Facebook and the EVTF application are then examined, followed by a discussion on the findings’ implications on government-led public policy conversations in social media environments.

2.2 Facebook Deliberation on Vancouver Transportation Policy

Over 500 Vancouver-area residents participated in Exploring Vancouver’s
Transportation Future in Facebook (EVTF), a June 2011 Facebook discussion focused on transportation of people, goods and services in the City of Vancouver, British Columbia. A unique Facebook application was developed by a web development company for the purpose of this e-deliberation. Resulting participant suggestions were responded to by transportation planners and are being considered along with other public recommendations in the development of a draft transportation plan. This Facebook event was one of a number of engagement tactics employed by the City of Vancouver, including in-person workshops and presentations for the public, paper and online surveys, stakeholder meetings, and an online discussion forum. Due to constraints of the study, a comparison of results across these various engagement methods is not possible.

Participants were recruited through targeted voluntary selection. The project developed organizational partnerships to encourage registrations that represent the diversity of Vancouver’s geography, demographics and travel modes (see below). Recruitment tools included a project website, online survey, outreach partnership database, images and text for partners to share with their constituents, bulk email tool, online advertisements, a Facebook tell a friend tool and incentives for top recruiters. As a result of these efforts, 537 people added the EVTF discussion app, 212 completed the entry survey without adding the application to their Facebook profile, 26 new participants contributed to the second phase of the online event and an unknown number of people shared, liked or read EVTF activity in their Facebook news feeds or on friend’s walls.

EVTF had two phases. In Phase I of EVTF, participants were assigned to groups to maximize diversity according to commuting habits and demographic qualities. Participants engaged in small group Facebook discussion over two and half weeks. Based on the researcher’s previous experience in public engagement, groups were sized at approximately 45 people in order to accommodate a likely ‘no show’ rate of one-half to two-thirds of registrants. These twelve groups first shared personal stories about how they

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2 The author is indebted to AmericaSpeaks, whose 21st Century Town Meeting model heavily influenced the design of EVTF. All positive and negative results of applying this model are the author’s alone. Disclosure: the author was an AmericaSpeaks employee and continues to be affiliated with the non-profit organization.
get around the city. Participants then discussed issues related to transportation – like health, affordability, economy, and the environment – after which each group chose two transportation topics to focus their discussion. Each group then worked together to evaluate related strategies and propose directions for the City’s Transportation Plan.

![Image of a Facebook discussion group]

Figure 3: An EVTF discussion group.

Each discussion group had a dedicated facilitator whose role was to actively focus group discussions on the tasks and support a respectful discussion atmosphere while not taking a position on the issues. These neutral facilitators spent about 30 minutes a day providing micro-interventions by engaging with specific posts and macro-interventions by summarizing the discussion to date. Facilitators had a range of comfort levels with the technology.

Discussion group facilitators summarized the conversations into ideas that were ‘often considered’ as well as listing the ideas that were ‘less often’ considered by the group.
Participants discussed these ideas for three days after which they were invited to vote for their top three recommendations. Top ideas from each group were integrated to avoid duplications, resulting in nineteen recommendations for Vancouver’s transportation future. Seven ideas emerged on cycling, five on public transit, three on land use, two on public space, and two on walking. None of the top ideas addressed goods movement, water transportation, street networks or demand management, which were also topics discussed by participants.

In Phase II, the nineteen ideas that emerged from small group collaboration were publicly discussed on Facebook for ten days in late June 2011. During this second phase, each idea received likes and comments, ranging from two to fourteen likes and four to thirteen comments. Unfortunately, due to a technical error the number of ‘shares’ was not measured, although anecdotally it was reported that sharing stimulated rich discussion on users’ Facebook walls. Anyone was also able to add their own idea although the design featured this as a secondary functionality in order to sustain the trajectory of recommendations born from participant discussion. Surveys were administered at project entry, mid-point, and ends of Phase I and II; response rates ranged between 13% and 26% of all registrants, or between 18% and 35% of participants who opened an EVTF email.

Discussion posts were contributed by 38% of participants who opened an email from the project\(^3\) (see Figure 4). Twenty-five percent of EVTF participants who opened an email from the project contributed two or more posts. This rate of participation is a significant increase over typical participation patterns, which, according to Nielsen (2006), feature contributions from only 10% of online users while 90% ‘lurk’ or read without contributing. A measure of active users on Facebook pages shows a similar and more accentuated division, where 81.6% view the status update of a page, 0.6% commented on a status and 0.3% posted a new comment on the wall of a page (McCarty, 2011). Both the Nielsen and McCarty data reinforce the notable levels of involvement by EVTF participants.

\(^3\) Twenty-eight percent of EVTF registrants never opened an email from the project. Anecdotal reports suggest that in these cases, project emails were going directly to junk email folders. These participants therefore received no reminders to participate.
The City of Vancouver Transportation 2040 team wrote a four page response to the nineteen recommendations, responding to each idea with related initiatives or plans. Results of the Facebook event and other public transportation conversations in spring 2011 are expected to be integrated into a draft Transportation Plan by the City of Vancouver, which will then go back to the public for feedback in early 2012.

Discussion content and questions were developed by the City of Vancouver and refined for the Facebook engagement event by UBC. This content was based on what was heard during City of Vancouver’s Greenest City consultations.

City officials, transportation experts and UBC researchers played a discrete and responsive role during EVTF. Participants could contact these parties via “Ask a Transportation Geek” form or through their moderator, and replies would be returned via email or posted in the discussion text as appropriate.

EVTF participants were satisfied overall with their civic experience in Facebook, with 80% recommending the use of this type of Facebook event for other public discussions (Figure 5). Participants particularly liked being able to hear the views of others and the
ease of being able to participate when and where was most convenient. There was less satisfaction with the modes of deliberation fostered by the app, with participants citing concern about the amount of time and limited functionality to support complex discussions.

Figure 5: EVTF participants' recommendation on whether to use similar Facebook events for other public discussions.

There are no known previous examples of government hosting a deliberative dialogue on Facebook, although EVTF draws heavily on previous uses of online deliberation in other online venues as well as face-to-face deliberative democracy methods.

2.3 The Influence of Facebook’s Affordances on Public Engagement

The following section examines EVTF and Facebook through the affordances of access to publics, distributed time and space, collaboration and learning, cross-platform connectivity and social character. The purpose of this analysis is to explore the possibilities and limitations of fostering deliberative public engagement in the social media venue.

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Many affordances of social media and Facebook are similar to those of the Internet in general, such as distributed time and space, or collaboration and non-linearity. However, this chapter discusses these affordances in a purely social media context in order to consider the implications of the current trend towards Facebook use in government led public engagement.
Results of EVTF are suggestive due to the small sample size of 141 people who posted in the small group discussions. As well, the comparative data from in-person public meetings is representative only of those who voluntarily chose to fill out a survey. Reports on EVTF strengths and limitations are the result of open-ended survey questions.

2.3.1 Access to Publics

The EVTF e-deliberation application followed the usability conventions of Facebook, a website that is used by worldwide by people of all ages, genders, incomes, ethnicities, educational backgrounds and other important demographic variables. However, there are demographic trends in Facebook and in the EVTF experiment that suggest barriers to ensuring equal access for online democratic processes.

2.3.1.1 Age and Gender

People aged 25-34 years made up 42% of EVTF participants, significantly overrepresenting the 18% of Vancouverites (Statistics Canada, 2007) and the 27% of Canadian Facebook users in that age group (Socialbakers, 2012a). In-person meetings held by the City of Vancouver also demonstrated an age overrepresentation, but on the other side of the spectrum. People aged 65 and older at the City of Vancouver public meetings comprised 32% of attendees, versus 13% of Vancouver residents of that age group (Statistics Canada, 2007).

The complementary nature of these age discrepancies argues for including both online and in-person methods in a public engagement strategy. However, it is important to note that the outcomes of each method are not fully comparable because of the substantial differences in how participants engage, including information presentation, duration and frequency of involvement and format for public input.
Figure 6: Participant age comparison. Note: the first age group is counted from different ages in each source (19, 18 and 20 years respectively) however for purposes of this figure that is focused on trends, they are all displayed here as 19-24. Also of note: City of Vancouver participants represent those who voluntarily filled out a written evaluation of the in-person public meeting, not all attendants.

Like most cities in North America, Vancouver is roughly divided in half between men and women; 49% of Vancouver residents are men and 51% are women (Statistics Canada, 2007). The Transportation 2040 in-person engagement activities had a fair representation of men and women. However, when it came to online engagement options, women were much more likely to participate in the discussion oriented Facebook event (57%), while men were much more likely to participate in the individual, bounded task of an online survey (62%). The overrepresentation of women in the Facebook event is consistent with the site’s gender demographics: women make up 54% of Canada’s Facebook users (Socialbakers, 2011).

EVTF results may suggest that men and women differ in their interest of different styles of online activities. A recent study shows a similar outcome, where there is slightly more female participation in the online discussion platform and slightly more male participation in posting blog articles (Monnoyer-Smith & Wojcik, 2011).
2.3.1.2 *Online Experience*

More than half (51.1%) of EVTF participants normally use Facebook several times a day, and an additional 34.6% use Facebook several times a week. Only 3% of participants use Facebook several times a year.

EVTF participants are also medium to long-term users of Facebook. Only 7.9% of participants have been on the site one year or less. Medium and long-term involvement with Facebook is significant, with 17.5% of EVTF participants on Facebook for two years, 28.1% for three years and a staggering 46.5% on the site for four years or more.

These trends suggest that long-term and high usage Facebook users are more likely to participate in a government hosted deliberation. The overrepresentation of these user categories may have implications on the substance of engagement...
outcomes.

### 2.3.1.3 Issue Representation

EVTF found a disproportionately low number of Vancouver-oriented Facebook groups and pages dedicated to mainstream transportation such as cars, trucks or taxis. Outreach efforts for EVTF uncovered 18 Vancouver groups (not including individuals or businesses) focused on issues related to automobiles. There were significantly more, to a total of 68, Vancouver groups and pages dedicated to alternative modes of transportation and individuals likely to prioritize transportation issues: 22 cycling groups, 36 environmental groups, 7 disability groups and 3 pedestrian groups. There was an analogous imbalance reflected in travel mode differentials among EVTF participants. Compared to 2006 Census data, EVTF participants were much less likely to drive to work and much more likely to bicycle. Therefore, the perspectives of drivers were not adequately represented in the discussions or results.

![Figure 8: Mode of travel to work. Note: the option of mixed transit and cycle or car was not asked in the census, therefore this data is not fully comparative. However, even if the 19% that responded to this option were reallocated entirely to driving (an unlikely outcome) there would still be a deficit in comparison to the 58% who used a car in 2006 to travel to and from work.](image)

### 2.3.1.4 Income and Education

Users of social networking sites are more educated and wealthy than the average
Canadian. Fifty-seven percent of Canadians earning $80K a year or more use social networking sites, compared to 32% of people with a high school education or less (Harris/Decima, 2011). EVTF participants are similarly privileged. While the 2005 median income in the City of Vancouver was $47,299 (Statistics Canada, 2007), approximately 29% of EVTF participants earned below the median while approximately 59% earned more than the median income. On educational measures, no EVTF participant lacked a high school, technical or post secondary certificate in comparison to 16.7% of Vancouver residents (ibid). On the opposite end of the spectrum, 32.5% of Vancouver residents (ibid) have attained a University certificate, diploma or degree compared to 70% of EVTF participants.

2.3.1.5 Ethnicity

People of European ethnic origin are overrepresented in EVTF participants, with 78.0% identifying North, West, Central, Eastern or Southern European heritage compared to 51.1% of Vancouver residents (ibid). People of Asian ethnic origin are underrepresented in EVTF at 10.3% of participants compared to 34.7% of Vancouver residents (ibid). People of Aboriginal, Latin American, African, Middle East and Arab, and Caribbean heritages are underrepresented by 0.3% to 1.2% while people who identified “Other” as their heritage are overrepresented by 3.9% compared to the 2006 Census data (ibid).

Facebook does not ask users whether they belong to a ethnic or racial group. Recent ethnicity research from the company’s analysts suggests that Facebook users in the United States have a similar composition to the nation’s overall ethnic diversity (Chang, Rosenn, Backstrom, & Marlow, 2010). No similar data exists for Canada. However, if Canadian Facebook users follow the same representative trend as the US, achieving ethnic representativeness among participants of a public engagement exercise is reliant on appropriate outreach and recruitment techniques, not the site’s affordances.
<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Vancouver, 2006 Census</th>
<th>EVTF Participants, n=533</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern and Western European</td>
<td>36.6%</td>
<td>66.4%</td>
</tr>
<tr>
<td>Central and Eastern European</td>
<td>8.3%</td>
<td>8.6%</td>
</tr>
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<td>Southern European</td>
<td>6.2%</td>
<td>3.0%</td>
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<td>4.3%</td>
<td>1.1%</td>
</tr>
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<td>Aboriginal</td>
<td>1.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Latin, Central and South American</td>
<td>1.3%</td>
<td>2.4%</td>
</tr>
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<td>African</td>
<td>0.7%</td>
<td>0.4%</td>
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<td>1.7%</td>
</tr>
<tr>
<td>Caribbean</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Other</td>
<td>9.3%</td>
<td>5.4%</td>
</tr>
</tbody>
</table>

Table 2: Ethnicity of EVTF participants and Vancouver residents.

### 2.3.1.6 Physical Disability

Online public engagement methods, such as EVTF, may increase participation opportunities for people with mobility challenges who find it hard to travel to in-person meetings or people with hearing disabilities who may find it difficult to discern what is being said at an in-person meeting. Visually impaired individuals may also benefit from online public engagement if the website is screen-readable. However, social media sites are often not designed for visual-impaired accessibility, as evidenced by 52.3% of screen reader users finding social media websites somewhat accessible and an additional 25.1% saying these sites are somewhat inaccessible (WebAIM, 2010). Recent research shows that Facebook Mobile is more usable for visually impaired individuals than the desktop interface, although the mobile interface is incomplete and inconsistent with the desktop interface (Wentz & Lazar, 2011). In addition to Facebook’s own technical hurdles, EVTF was not designed to be compatible with screen readers, so it is likely that few visually impaired individuals participated, although no data was gathered on this topic. Technical design choices are thus highly influential on the ability for visually impaired individuals to participate in online engagement, while people with mobility challenges are able to participate according to their interest rather than determined by their physical ability.

### 2.3.2 Distributed Time and Space

Facebook’s technology extends user interactions over time, virtual and physical space.
Users can log into the social network website whenever and from wherever they have access. Almost all EVTF participants are City of Vancouver residents (78%) and people who reside within a commuting distance (20%). EVTF both benefited and was constrained by these affordances.

### 2.3.2.1 Asynchronous and Distributed

A key benefit to Facebook as a site of public engagement is that people can participate at their own time and from their own location, instead of particular meeting locations and scheduled meeting times of face to face public engagement. This is particularly useful for discussions relevant to a large geographical area, but proved to be useful as well in the urban context where busy lives can exclude otherwise interested members of the public.

Eleven (11.2%) of EVTF participants mentioned qualities of asynchrononicity and distributedness when answering an open ended question about the strengths of the engagement process. Some participants recommended holding one or more synchronous discussions during the online event.

### 2.3.2.2 Immediate

Social media makes users’ activities viewable and sharable in real time. User’s expectations of a short timeframe for social media interactions (Conole & Dyke, 2004) was leveraged by EVTF, for example by sending out an email and requesting that people respond in the same day. Fostering immediacy in the online discussions worked well with simple tasks such as two days for story telling. It also helped create a sense of momentum for the project. However, participants gave feedback that four days per transportation strategy, a total of eight days for two strategies, was insufficient time. Participants recommended allocating more time for the complex tasks of developing policy recommendations.

### 2.3.3 Collaboration and Learning

Online engagement methods enable rich participant collaborations because of capacities
for multiple information formats, opportunities to contribute ideas and collaborate with others.

2.3.3.1 Non-Linear
Facebook encourages non-linear information exchanges through the use of hypertext. The information embedded in an individual post expands beyond the text by linking to internal information, such as Facebook users, events and groups, or to external information throughout the Internet. Users can then follow links of interest, fostering discovery-oriented learning.

EVTF supported participants to learn, share ideas and aggregate knowledge through non-linear and multimodal information exchanges. Researchers developed educational materials and made them available as documents, videos and slideshows; these were referenced in discussion posts by moderators and participants; eighteen percent (18.1%) of EVTF posts cite these background materials. Participants also integrated information and materials from a variety of other online and offline locations by reporting the information through discussion (19.3% of posts) or by posting a link (4.5% of participant posts). The deliberation process itself was a mix of linear (e.g. respond to this video) and non-linear (e.g. suggest and respond to others’ transportation strategy priorities) engagement tasks.

2.3.3.2 Reflexivity
Asynchronous online activities encourage reflection and critique, due to the extended amount of time available for discussion and participant ability to build on archived material from earlier discussions (Conole & Dyke, 2004). EVTF leveraged this affordance, but Facebook conventions prioritize newer posts, dampening the user’s ability to easily navigate to previous discussions, as demonstrated by a participant’s evaluation, “Replies sometimes were buried and it was not obvious when a reply was connected to previous entry or whether it was a pure response to the original question. Conversations were a bit mixed up as a
result.”

2.3.3 Collaboration
Developing innovative responses to policy challenges is often a desired outcome of public engagement efforts. Facebook can foster collaborative idea development among users through its interactive nature. A user might pose a question or ask for feedback on an idea which is displayed in the newsfeeds of people in the user’s network; subsequent comments can develop that idea. (Note that EVTF did not have this feature.) However, Facebook’s affordances limit deep issue exploration as responses to a post are organized on one hierarchical level (making it difficult to follow sub-discussion threads), and new posts bury older ones.

Facebook groups and applications like the e-deliberation app behind EVTF can cultivate focused dialogue, even though comments are limited to one depth, by bringing users together multiple times in a focused space. Participants of EVTF were encouraged to explore ideas and collaborate through the discussion process, moderator support and reminder emails. However, the engagement process was designed and implemented with a ‘top-down’ orientation, and did not encourage participants to collaborate outside of the e-deliberation’s parameters.

2.3.4 Cross-platform Connectivity
Facebook applications, such as the extremely popular Farmville and Texas Holdem Poker, are highly integrated into the Facebook interface, making it easy for users to incorporate the use of apps in their typical Facebook activities. More than seven million apps and websites are integrated with Facebook (Facebook, 2011c).

2.3.4.1 News Feed Activity
Facebook activities are typically displayed in the news feeds of the user and their friends, depending on privacy settings. This syndication enables users to see and respond to items of interest and enables entities such as governments to ‘push’ their message out to new audiences with the added weight of peer endorsement.
EVTF was designed to foster a ‘safe’ space for conversation where participants of small group discussions could explore the issues without being concerned about being judged by non-participants, therefore EVTF did not integrate small group activity into the newsfeeds of users’ or users’ friends. This design choice limited the success of EVTF because users were not reminded of their group’s conversation along with other Facebook news, and users were required to visit the app’s page rather than participate through the news feed. Fourteen percent (13.8%) of closing survey respondents cited this as a barrier to participation in response to an open-ended question about EVTF’s limitations.

Phase II did make use of the news feed and anecdotal reports indicate that this was beneficial for sparking conversations. However, capturing such distributed conversation for input into a policy process is challenging due to technical hurdles in tracking conversations that don’t link to the central discussion, and privacy barriers such as lack of access to activities of people who are not in the hosts’ friend network.

2.3.4.2 Third Party Tools

Facebook’s current interface makes it difficult to send large numbers of private Facebook messages outside of the social networks’ groups tool, does not enable senders to track the number of message opens, nor allows the sender to distinguish between those who do and do not open a message. The use of bulk email tools can thus be an important complement to a Facebook-based engagement effort because adults use email more often than social networks (Purcell, 2011) and bulk email tracking tools allow conveners to analyze and respond to email delivery patterns.

An unexpected breakdown in interconnectivity occurred between the EVTF Facebook application and the project’s bulk emailing tool, Mail Chimp (which is not integrated with Facebook). Participant’s emails were downloaded from user
account information made available through adding the application. Emails were uploaded to Mail Chimp but delivery rates were extremely poor - many participants reported the project emails being sent to junk mail folders. Twenty-eight percent of participants did not open a single email from the project, significantly decreasing the potential for participation. When this problem was identified, project administrators contacted users who had not opened an email via non-bulk emails and via Facebook messaging. Most of the moderators were not ‘friends’ with the people in their group, and as a result, Facebook issued a spam warning after sending 6 to 10 consecutive messages to these individuals. There was a small increase in participation and email opens from these efforts. Future engagements will have to grapple with Facebook’s limited mass private messaging functionality by either adding participants to a Group or by sending five or less messages to non-Friends per day.

2.3.5 Social Character

Facebook is a social medium. Like other social network websites, Facebook attracts and supports networks of people and facilitates connections between them (McLoughlin & Lee, 2007). How participants represent themselves, what information they share, who they connect with and the perceived value of these interactions can all impact the efficacy of public deliberation in Facebook.

2.3.5.1 Anonymity and Attribution

EVTF did not ask participants if their user names were “real”, however an examination of participant user names indicates 2% of names do not follow typical first-name last-name format. Research indicates similarly high rates among college and general Facebook users, where 80-95% of Facebook users’ accounts are under their real names (Acquisti & Gross, 2006; Lorenzo-Romero, Alarcon-del-Amo, & Gomez-Borja, 2011; Tufekci, 2007). A few participants cited the use of real names as a strength of EVTF, including the respondent who said, “It was nice to see real, identifiable people participating.”
2.3.5.2 Privacy

EVTF asked participants to add an application, which would enable them to participate in the discussion in exchange for the app’s access to their basic profile information, permission to send them email and post to the user’s Facebook wall (see Figure 10). Of the 749 people who filled out EVTF’s entry survey that was hosted on a third party website, 28.3% did not add the application to their Facebook profile and thus did not participate in discussions. Anecdotally, potential participants who did not add the app reported a desire to know more about how their information would be used, and expressed overall reluctance to add applications in Facebook.

An important piece of personal information collected via EVTF survey is participants’ postal code, allowing the data to be contextualized as contributions from commuters or residents of Vancouver. This is particularly important in a policy context like transportation where Vancouver City Council decisions impact the region but Vancouver residents and voters will ultimately approve or obstruct responses such as a financial investment in transportation.
Research suggests that Facebook users “friend” people to maintain relationships with people in close physical and social proximity to a greater extent than they browse for complete strangers to meet (Lampe, Ellison, & Steinfield, 2006). Supporting this theory, EVTF participants’ top three reasons for using Facebook are to keep in touch with friends they see rarely (74.4% of respondents), keep in touch with friends they see regularly (52.6%) and to hear about social events (45.1%). Meeting new people ranked the lowest at 3.8%. Nonetheless, EVTF participants were willing to spend time with strangers in order to share their opinion on Vancouver Transportation, and 15.6% expressed appreciation about the opportunity to interact with others.

Participants did not express a desire for stronger social ties with their discussion group colleagues. Participants of both phases on average responded with ‘disagree’ or ‘strongly disagree’ when asked if they ‘want to keep in touch with people I met during the discussions’.

2.3.5.3 Interpersonal Connections
2.4 Discussion

This chapter explores how Facebook and the EVTF application may, by their nature, invite particular kinds of participants, interactions and outcomes. This investigation is timely because governments are increasing their use of Facebook for public engagement. Currently, most uses of Facebook by government are for communicating information to the public rather than interactive idea sharing, so it is useful to highlight the ways in which Facebook can be better applied as a tool for meaningful participation. In cases like EVTF, where Facebook is being used to tap into public priorities to help direct our government decisions, the implications of the social network’s affordances must be carefully weighed in order to approach democratic ideals for public participation.

2.4.1 Who Participates

Facebook is a promising venue for connecting with citizens because so many people are on the social network. This addresses a constraint in face-to-face engagement that democratic theorists had considered a practical necessity, which is exclusion of most people in order to ensure meaningful engagement by the few citizens who do attend a public engagement exercise (Abelson et al., 2003; Parkinson, 2003). Greater access is
Table 3: Summary of social media affordances and impacts on deliberative public engagement.

<table>
<thead>
<tr>
<th>Social Media Affordances for Public Engagement</th>
<th>Impact of Facebook Affordance on Deliberative Public Engagement, as seen through EVTF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Publics</td>
<td></td>
</tr>
<tr>
<td>Age and Gender</td>
<td>High proportion of young people and women, increasing access to participants typically underrepresented in public engagement projects</td>
</tr>
<tr>
<td>Online Experience</td>
<td>Participants more likely to be active in social media than the average person, may indicate distinct values</td>
</tr>
<tr>
<td>Issue Representation</td>
<td>Some social issues are better organized than others online; avoiding consequent over/underrepresentation requires an investment in outreach and recruitment efforts</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>No significant differences in ethnic use of social media from overall population, but voluntary self-selected recruitment can skew participation; compensating for this requires an investment in outreach and recruitment efforts</td>
</tr>
<tr>
<td>Physical Disability</td>
<td>Online engagement increases access for mobility challenged people. Technology must be screen reader accessible for people with visual disabilities</td>
</tr>
<tr>
<td>Distributed Time and Space</td>
<td></td>
</tr>
<tr>
<td>Asynchronous and Distributed</td>
<td>Convenience of engagement time and place fosters participant satisfaction and enables ‘busy’ people to participate</td>
</tr>
<tr>
<td>Immediate</td>
<td>Short response time typical of social media produces bursts of activity. Reliance on short timelines can be inappropriate for deep engagement</td>
</tr>
<tr>
<td>Fragmented participation</td>
<td>Participant focus is compromised by digital and in-person distractions</td>
</tr>
<tr>
<td>Collaboration and Learning</td>
<td></td>
</tr>
<tr>
<td>Non-linear</td>
<td>Discovery-oriented learning through hyperlinks, at-your-own pace involvement and incorporating learning materials into the posts can foster engagement and informed discussion</td>
</tr>
<tr>
<td>Reflexivity</td>
<td>Reflexivity encouraged by asynchronous and text based discussion is dampened by Facebook’s interface of one-depth discussion threads</td>
</tr>
<tr>
<td>Collaboration</td>
<td>Multiple participant exchanges may address technical barriers to collaboration such as one-depth discussion hierarchies and new posts ‘burying’ older ones</td>
</tr>
<tr>
<td>Cross-platform Connectivity</td>
<td></td>
</tr>
<tr>
<td>News Feed</td>
<td>Push reminders of engagement activity is desired by participants; limited reported concerns of personal opinion exposure or breach of privacy</td>
</tr>
<tr>
<td>Third-Party Tools</td>
<td>Greater control over look and functionality through apps and other third-party tools is tempered by technical challenges of integration (e.g. message deliverability, activity tracking)</td>
</tr>
<tr>
<td>Social Character</td>
<td></td>
</tr>
<tr>
<td>Anonymity and attribution</td>
<td>Use of ‘real’ names is of value to participants and may cultivate civil discourse. Capture of participant postal code is of value to governments</td>
</tr>
<tr>
<td>Privacy</td>
<td>Many potential participants may not add an app due to concerns about use of their personal information</td>
</tr>
<tr>
<td>Interpersonal Connections</td>
<td>Although Facebook interactions emphasize existing social relationships, participants engaged with strangers for the opportunity to contribute to policy decisions</td>
</tr>
</tbody>
</table>
also strengthened by the ability of online discussions to scale at a fraction of the cost and resources of similar in-person efforts.

Numbers aside, achieving goals in participant recruitment is largely a matter of demographic variables. EVTF did not engage a demographically representative group. EVTF participants were wealthier, more educated, and less ethnically diverse than the community they come from. This was partially due to Facebook itself, because social media users in Canada are unrepresentative in many of these respects. The discrepancy was also partially caused by the project’s self-selection recruitment methods, rather than random sample. However, self-selection is likely to be the kind of recruitment methods used by resource-strapped governments. Further research and experimentation would be beneficial on how to make best use of existing social networks to attract a heterogeneous and representative group of participants. Thirdly, EVTF’s high rate of long-term and frequent Facebook users suggests that using Facebook for everyday activities is practice for participating in e-deliberations within the social network. This may be because Facebook’s early adopters are looking for innovative experiences, they are already spending time in the social network so adding an additional activity is not a burden or they are more familiar and comfortable with the interface than less frequent users. Supporting this possibility is recent research which concludes that the longer a Facebook user has been active on the social network, “the more frequently he/she makes status updates, uses the “like” button, comments on friends’ content, and tags friends in photos” (Hampton, Goulet, Marlow, & Rainie, 2012, p. 5).

Even if Facebook users who participate in an engagement effort are demographically comparable to their community, Facebook users may represent different values or priorities than the community at large. As shown above, participants of EVTF differ from their community in willingness to add the FB app, somewhat early adoption of Facebook, and regularity of Facebook use. Facebook users themselves are unlike non-Facebook users in their level of concerns about privacy online. In Canada, 45% of social networking site users have privacy concerns about these services compared 66% of people who do not use the tool (Harris/Decima, 2011). Recent research on U.S. Facebook
users show that people who use the service multiple times per day are 43% more likely than other internet users, and three times more likely than a non-internet user, to feel that “most people can be trusted,” (Hampton, Goulet, Rainie, & Purcell, 2011).

These findings suggest that if Facebook becomes a regular public engagement tool for government, it must be balanced by other online and in-person methods. Other online methods will enable non-social media users to participate. However, a “democratic divide” has been demonstrated between people who participate in public life online, and those who do not, even though they have high Internet access and skill (Min, 2010). The democratic divide and significant demographic discrepancies between social media users and the wider public argues for complementary in-person approaches. For best results, in-person approaches and online methods should be as similar as possible in terms of the questions asked, content presented and mode of interaction in order to approach comparability in the results.

The lack of issue representation, or parity among EVTF participants and the commuting habits of Vancouver’s population, is likely not due to Facebook’s affordances. Attracting people across an ideological or behavioural spectrum requires issue visibility. Many Facebook discussions attract involvement on both sides of the ideological spectrum, like gay marriage (Kushin & Kitchener, 2009) or electoral politics. The choice to use a car is not contentious for most members of North American society, however there is a community of Vancouver area people who are interested in alternative transportation who are organized offline and on Facebook. Those pre-existing groups and networks made it easier for the participation opportunity to spread among individuals who don’t identify as car drivers. Like other demographics, recruitment for future Facebook-based deliberative engagement requires careful consideration on how to attract people that may not prioritize the issue but have important perspectives for consideration.

Language is an additional factor to consider in terms of how Facebook affordances encourage or discourage participation from particular groups. Non-English engagement projects enable participation by individuals who are less comfortable or unable to speak
English. Facebook has a built-in translation tool powered by Bing but the results are ‘mechanical’ and often comical. Public engagement efforts should eschew this translation tool because clarity is an important quality for exploring disagreements. Future Facebook engagement projects must consider though how to involve community members who don’t speak English and, optimally, how to expose different language groups to one another’s contributions.

Another interesting view on the demographics is the slight overrepresentation of women in Facebook overall and in the EVTF engagement. This is consistent with empirical research showing that deliberative participation appeals to women and others who are less likely to participate in traditional partisan politics (Neblo, Esterling, Kennedy, Lazer, & Sokhey, 2010). Thus, Facebook-based deliberative participation may increase participation by women.

2.4.2 How People Participate

Coleman & Gotze (2001) argue that technology is only of secondary importance to the success of online engagement efforts, and the larger influences are social, cultural, and organisational issues. These non-technical factors are especially influential on the extent to which Facebook and deliberative Facebook apps like EVTF meet some of the normative goals of deliberative democracy discussed earlier in this chapter – such an increase in the frequency of political action, political tolerance, understanding of opposing rationales or expanding the ways for ordinary people to influence policy – where participant recruitment, process design and content development may play a significant role.

Facebook affordances may influence other socially desirable outcomes discussed above like increased knowledge, reflective judgements, and sense of political efficacy. Increased knowledge is cultivated by the non-linear and collaborative properties of Facebook and the EVTF app. Survey respondents identified EVTF strengths such as, “Bouncing ideas off some people and piggy-backing on others” and “Helps to spark ideas you would not have thought of or considered on your own”. More reflective judgements
are encouraged by the asynchronous nature of discussions, as represented in survey responses such as, “It was good to hear others opinions and have time to think about them before responding.”

A sense of political efficacy may be developed through the immediacy of seeing one’s contributions included in a policy discussion. Participants reported this as a strength of EVTF in comments such as, “Open space to have a discussion and responsive participation rather than emailing a faceless city hall representative to provide suggestions that may never be seen or heard,” and from another participant, “I enjoyed having my opinions viewed.”

The quantity and quality of participation benefits from Facebook’s properties of distributed time and space. People can participate on their own schedule and from their own location, instead of particular meeting locations and scheduled meeting times of face-to-face public engagement. This is particularly useful for discussions relevant to a large geographical area, but proved to be useful as well in the city context during EVTF where urban participants live busy lives, as demonstrated by qualitative survey responses such as, “Enabled the possibility for the discussion to reach people who lived outside the area but had significant input,” and, “I enjoyed having the freedom to log-in whenever it was possible for me to do so, whether it was during the day or night, and weigh in on the conversation.”

Fragmented attentions are a negative consequence of hosting a public discussion on Facebook. Participants may be contending with digital distractions such as email notifications or Facebook chats, or in-person distractions such as the arrival of their bus or family members asking for their attention. It is likely that the quality of participant contribution is compromised in comparison to the dedicated focus of an in-person discussion, as described by one participant who said, “It was going on in the background while I was focussed on other things....it was easy to forget about and did not get my 100% focus.”
Lastly, the routine use of real names on Facebook may impact the way people participate with one another. The use of real names, or attribution, has been touted by Facebook Marketing Director Randi Zuckerberg as a way to encourage civil discourse and discourage bullying behaviour (Parrish, 2011). Facebook’s Statement of Rights and Responsibilities details an expectation that users will provide their real names and information (Facebook, 2011b). Critics of the real-names requirements argue that the actual motivation is the monetization of identities for advertising industries (McNamara, 2011). Activists like the Electronic Frontier Foundation warn that a requirement for real names can compromise users’ safety and freedom of speech, noting that people with unpopular or dissenting points of view may be silenced in fear of bodily or social status repercussions for speaking out (McNamara, 2011). Public engagement activities that occur in online venues must grapple with the possible benefits and constraints of requiring or recommending the use of participants’ real names.

2.4.3 What Participants Say

The properties of Facebook support the ‘civic model’ of public engagement’s emphasis on active reflection, negotiation and reevaluation. The interactive and interpersonal nature of Facebook encourages opinion sharing and responses, which can foster an emergent understanding of the issues under deliberation. In EVTF, for example, one participant said, “I enjoyed reading other folks responses and commenting on them. We all gravitate to different issues and reading everyone else's responses helped me gain some valuable perspective.” Another EVTF participant said, I enjoyed hearing others' opinions and considerations -- it helped to expand my own view of public transit in Vancouver. “

Substantive outcomes of a Facebook deliberation project are partially measured by the extent to which participant contributions impact next steps taken by government. Two factors suggest promising results for EVTF. The City has publically responded to all nineteen EVTF recommendations. As well, transportation planners have committed to considering EVTF recommendations along with the products of other public and stakeholder consultations in their development of a draft plan. However, the
unrepresentative nature of participants limits the extent that the EVTF recommendations should influence the outcomes, as the views of car drivers, lower income and ethnically diverse communities must be considered as well. An analysis comparing participant recommendations and the final plan is outside of the scope of this thesis.

The EVTF app and engagement process were designed to encourage agreement amongst participants. This was particularly true in Phase One where facilitators summarized ideas into more and less frequently mentioned ideas, followed by a participant vote for their preferred ideas. The consensus orientation is pragmatic, because Vancouver’s transportation decisions eventually need to be made. However the consensus orientation also functioned to downplay ambiguities, difference, and dissent, typical of ‘top down’ institutional arrangements like EVTF (Stirling, 2007). Similarly, EVTF discussion topics, format and timing were set by conveners, and the community had limited influence on these formative aspects of the engagement. This approach lowers the risk for convener, but may stunt the potential of discussion to get to new ideas and build community efficacy. Community-led efforts are an important balance to formal engagement efforts because they can advance distinct agendas and empower action in influential areas that lie beyond the policy context. Facebook’s user-friendly tools enable such action.

2.5 Conclusion

This study examined how Facebook’s affordances impact who participates in deliberative public engagement, how they participate and what is said. It is clear that Facebook’s affordances significantly impact these qualities. It is also true that the who, how and what of public deliberation in social media is heavily influenced by the technical, social and organizational choices made by designers of the deliberation process. This is echoed by Wright and Street (2007) who argue that, “how discussion is organized within the medium of communication helps to determine whether or not the result will be deliberation or cacophony” (p. 850).

The rapidly changing nature of social media emphasizes the need to consider online public engagement efforts as experiments that require risk taking. Facebook in particular
offers significant strengths for public deliberation on policy development, such as potential access to large numbers of citizens, convenience of participation and reflective opinion sharing. However, Facebook’s demographic trends and typical outreach challenges require careful planning to ensure representative public participation in e-democracy efforts. Similarly, the Facebook interface is simple and well known, which increases public capacity to use the tool, but Facebook conventions or apps that are designed to mimic Facebook’s look and feel have limited capacity to support complex and ongoing discussions. It still remains to be seen if truly interactive deliberative processes can be fostered within a social media environment, although a greater design emphasis on multimodal and non-linear activities would benefit deliberative process and outcomes.

Using Facebook for public engagement has the potential to redefine the public’s relationship with government. In EVTF, participants had ease of access to government-hosted policy discussions, were appreciative of their contributions being publically included in a community conversation, saw their ideas incorporated into a decision-making processes, received feedback from government, and connected with others who care about the issue under discussion. The complexity of today’s policy problems requires better solutions and more open government processes, both of which are partially served through public involvement in decision-making. Embedding government-led public engagement in a social media venue like Facebook offers a promising opportunity for strengthening the public-government relationship.
3  E-Deliberation on Facebook: Measuring Deliberative Discourse in Social Media Based Public Participation

3.1  Introduction

While democracies around the world are struggling with decreasing civic participation, falling voter turnout, public cynicism towards politics and lack of trust in their elected representatives, publics are conversely increasing their online interactions with one another, businesses, organizations and government (Statistics Canada, 2010; Garrett, 2006; Levine, Locke, Searls, & Weinberger, 2000). Online tools offer a promising response to the democratic crisis by connecting governments with the public via tools that are interactive by nature, affordable, scalable, bridge geography, available on demand and have the potential to be demographically inclusive. The public is ready; currently, 54% of Canadians say they would engage more with government if there were ways to participate online (Fleishman-Hillard, 2011).

Social media is one group of tools being used by democratic governments to engage the public. Social media is participatory and collaborative technology that allows users to create and exchange content (Kaplan & Haenlein, 2010), particularly among peers and groups of shared interest. Tentative government adopters are using services such as Twitter, Facebook and blogs to push messages out to the public, reproducing traditional one-way communication. Some government agencies and administrations have taken a bolder approach, utilizing the many-to-many nature of social media in order to listen and exchange ideas with their citizens – leading examples include the Federal US Obama Administration, the City of Manor, Texas, and the City of Melbourne, Australia.

Least common, but perhaps most essential to democratic health in an Internet age, are e-deliberations. In an e-deliberation hosted by government, participants meet online to wrestle with one another’s opinions and the available options to provide informed recommendations to decision-makers. There is an exploding repertoire of digital tools for public deliberation including but not limited to email, mailing lists, surveys, instant
messaging, discussion boards, blogging, video-blogging, microblogging, bulk text messaging, crowdstorming, crowd sourcing, serious games, collaborative mapping, collaborative document writing and editing, virtual worlds and social networking.

E-deliberation is a subset of e-democracy, which uses information communication technology to support and enhance democratic institutions and processes particularly through public engagement (Council of Europe, 2009). E-democracy is distinct from e-governance (government information and services online) and e-voting (register to vote and cast ballots online). The public participation emphasis of e-democracy and e-deliberation are significant because they move beyond the customer-provider relationship to focus on increasing public knowledge of the issues, collaboratively improving the quality of government decisions, widening the perspectives considered in governance, and strengthening the public-government relationship.

Many of today’s pressing policy issues are appropriate for public engagement because they are too complex and multi-jurisdictional for any one actor to develop or implement solutions. Sustainability is one such policy area. Sustainability is typically defined as environmental, social and economic systems that meet the needs of the present without compromising the ability of future generations to meet their own needs (United Nations, 1987). However, there are dozens of definitions of sustainability, and Robinson (2004, p. 380) points out that the term’s vagueness is an advantage for participatory processes, where it becomes “constructive ambiguity” for exploring the normative nature of sustainability. Sustainability policy development requires this exploration of values and a testing of public willingness to support individual or collective behaviours. The informed discussions and weighing of options that characterise deliberative public engagement therefore makes it an indispensable method for addressing sustainability policy challenges.

Of all the social media tools available to governments for public engagement, no network currently has a larger user base in western democracies than Facebook. The social network is the second most popular website in the world (Alexa, 2011); 50.7% of
Canadians and Americans have an account (Socialbakers, 2012b), offering significant potential to reach citizens in a place where they already spend their digital time.

In order to explore the potential of Facebook for public e-deliberation on sustainability policy development, I developed, implemented and researched an online engagement project in partnership with the City of Vancouver’s transportation department. Over 500 Vancouver-area residents and commuters participated during the month of June 2011 in small group discussions convened as Exploring Vancouver’s Transportation Future (EVTF). This Facebook e-deliberation resulted in recommendations that were considered in drafting the City’s transportation plan.

EVTF’s goals were threefold. From a research perspective, EVTF explored the viability of social media for government-led public engagement including questions of who participates, how they participate and the impacts of participation such as how participants perceive the issues and how government responds. Instrumentally, EVTF’s purpose was to pilot a new methodology for engaging the public on city-wide issues which could complement face-to-face approaches implemented by the City of Vancouver’s transportation department. Lastly, the substantive purpose of EVTF was to improve the quality of decisions made by City transportation planners, by eliciting the shared priorities of participants. EVTF is a project of Greenest City Conversations, a Vancouver, BC, research-action project exploring innovative approaches for public engagement on sustainability decision-making (www.gcc.ubc.ca).

The goal of this article is to determine if deliberation was present in a Facebook-based public engagement project designed by the researcher to be deliberative. The outcome is dependant on the extent to which five deliberation measures (discussed below) are present in participant discourse. These measures are intended to determine whether participants carefully examined the issues, communicated their own perspectives and respectfully considered other points of view in service of developing well reasoned solutions. Idealized notions of deliberation would focus measurement on normative conditions such as rational judgement and freedom from coercion. On the other hand,
democratic deliberation practitioners might emphasize instrumental or substantive conditions such as demographic representativeness and ‘usable’ outcomes. This chapter will balance the two approaches, and measure the presence of deliberation according to the emerging “third generation of deliberative democracy” that is both practical and responds to the normative ideals of the field’s origins (Elstub, 2010).

This chapter is organized as follows. It begins with a theoretical background of deliberative democracy and its expression in online venues. Next, details of the Facebook case study are described including participant recruitment, engagement design, facilitation methods and decision-making processes. The methods section also describes the coding scheme used for analyzing the deliberative qualities of the discussion content. Having laid the groundwork, the chapter then provides detailed results of the content analysis. I then discuss how the EVTF case study fostered the individual role in deliberation but was not successful in eliciting deliberative exchanges among participants. The chapter concludes by pointing to the mixed quality of e-deliberation in EVTF and suggesting further attention to engagement process design, participant recruitment and technological development.

3.2 Deliberative Public Engagement in an Internet Age

Involving the public in government decision-making goes by many names including public engagement, citizen participation, civic engagement and deliberative democracy. Behind all these terms perhaps lies a common belief that democratic systems and decisions themselves are strengthened by opportunities for people to shape the public decisions that most impact their lives. Democratic deliberation theoretically involves a rational exchange of judgements among participants treated as equals in the process on an issue of public concern in order to select a preferred alternative (Cohen, 1997; Parkinson, 2003). This preferred alternative should ideally reflect the common good (Bohman, 1996; Cohen, 1997) – a cooperative solution that the public can accept despite their differences – although there is concern that striving for such consensus can repress diversity (Chambers, 2004; Gutmann & Thompson, 2004).
Deliberative public engagement borrows heavily from Habermas’ (1984, 1989) concept of the public sphere in which people, when confronted with a problem, move toward agreement through deliberations that follow the “discourse ethics” of open access, voluntary participation, free opinion exchange including the ability to criticize the state, and an equal distribution of power among participants. Rawls (1999) identifies similar conditions for public deliberation including participant access to sufficient information, no manipulation of deliberation processes or outcomes, an orientation toward the common good, and political equality where “the force of the argument” overrules power and authority.

In practice, democratic deliberation is a messy process in which participants are emotionally motivated, distracted by other pressing issues and unequally positioned to participate. Deliberation may thus benefit from integrating the practice of dialogue. Dialogue is discourse that emphasizes the negotiation of shared meaning particularly through non-rational expressions, while safeguarding spaces for difference and the possibility of dissensus (Bohm, 2004). Situating dialogue as a valued objective in itself may chafe against the instrumental aims of deliberative public engagement but its inclusion is important for the deep policy exploration and identity formation required to effectively tackle sustainability policy (Bendor, Haas Lyons, & Robinson, 2011). Accordingly, this chapter investigates some dialogic elements in EVTF by measuring the use of personal narrative as an alternative way of speaking and knowing. However, in-depth measuring of dialogicality is limited by the interpretive challenge of accurately measuring instances of meaning-making or emotion.

The definition of deliberative public engagement used in this paper, and which integrates some limited elements of dialogue, follows Gastil (2006, 2008): deliberative public engagement is an official or quasi-official process where policymakers, content experts, and lay citizens work together on an issue of public concern, in which participating citizens carefully examine the issue(s), include and consider each other’s diverse points of view, weigh information and seek a well-reasoned solution. These qualities are reflected in the deliberation measures used to evaluate the EVTF e-discussions.
The rationale for deliberation can be understood as normative (rights of the citizen), substantive (better decisions) and instrumental (supports policy formation and implementation) (Stirling, 2006). Beierle and Cayford (2002) studied 239 environmental projects and found benefits in all three dimensions, namely that public involvement produces decisions that are responsive to public values and substantively robust, helps to resolve conflict, builds trust and increases public knowledge about the issue. Dryzek (1990) also argues that “discursive” discussion gives an opportunity for diverse perspectives to be heard, which results in a better understanding of the issues and is thus more effective for solving social problems than vote-centered processes. Normatively, participation in deliberative processes enables an “enlarged mentality” by being exposed to new information, supported to coherently order their preferences, and encouraged to be reflexive on their individual preferences (Benhabib, 1996). Additional instrumental benefits include increasing government responsiveness and accountability and cultivating citizens’ commitment to implementation (see for example Arnstein, 1969; Fung, 2003; Lukensmeyer & Brigham, 2002; Stromer-Galley, 2007).

Moving public dialogue and deliberation into online environments addresses some key challenges of face-to-face engagement methods, such as scaling up to large numbers of participants (Fishkin, 1991; Friedman, 2006; Parkinson, 2003), geographic representation over vast areas (Niemeyer et al., 2008), the need for low-cost mechanisms to meet regulatory requirements for public comment (Schlosberg & Dryzek, 2002) and access to diverse demographic populations (Ryfe, 2005).

Concerns about the use of Internet-based democratic deliberation focus on how online methods impact who participates, how they participate and to what outcome. “Who is included, who is left behind, and how … [to] grapple with the persistent problems of unequal power relations both online and offline,” is an important set of questions for e-deliberation (Evans-Cowley & Hollander, 2010, p. 406). Simple access to the Internet is no longer the factor that divides the included from the excluded. The contemporary digital divide can be understood as disparities between the media literate and illiterate,
between young and old, between media consumers and producers, and between urban and rural residents (Foth, 2006). A marked increase of mobile Internet access by people of colour, lower income individuals and rural residents is also expanding the potential of the Internet to widen the net of participants for public deliberations (Smith, 2010b). A related concern is the ‘democratic divide’ between people who participate in public life online, and those who do not even though they have high Internet access and skill (Min, 2010). The integration of public life into widely adopted social venues like Facebook has the potential to positively impact these measures of the digital divide.

Depth of participation in online deliberation is another concern about e-deliberation. A major potential trade-off in online deliberation is that, unlike face-to-face workshops, which typically last several hours, online processes can be very brief, ranging from seconds to minutes of interaction at a time. This impacts the depth of participant reflection, listening and learning. However, participants of an online deliberation can also be involved in a series of short interactions over weeks or months, which accumulate to a depth of engagement impossible for most in-person methods.

Some scholars are specifically inventorying how online tools are being used for official public input into government policies and inquiring how such processes be made more effective, including looking at different design principles and ways of structuring and facilitating online deliberation (Davies & Gangadharan, 2009). For example, the impact of government-led online deliberation can be constrained by the nature of top-down design choices that leave little room for ideas that run counter to the convening agenda. Zavestoski (2002, p. 328) asks if online engagement results in “authentic democratic expression or the mere aggregation of preferences”.

Some scholars suggest that experiments in online deliberation are producing encouraging results. Price and Capella (2002) find increased political engagement and general community participation among participants of ongoing online political deliberations. Iyengar, Luskin and Fishkin (2003) find online deliberation participants have enhanced knowledge of the convening issue and a shift in their policy opinions towards the
common good. Muhlberger (2005) finds enhanced feelings of efficacy and citizenship among online deliberators. Coleman (2004) finds that online consultations are inclusive, generate and connect networks of interest or practice, can lead to greater trust between elected representatives and the public, but that most online discussion is uninformed and of poor quality.

A review of selected government pilot projects and public sector experiments reveals the eclectic ways which Facebook is put to use as a tool of public engagement. Facebook actively encourages governments to use their service and to that end hosts a page dedicated to ‘Government on Facebook’. However, the typical government Facebook strategy government does not connect public engagement activities with genuine influence or impact on policy, which is a best practice of deliberation (Rowe & Frewer, 2000). The Obama Administration’s Facebook presence shares information and provides a forum for the public to speak, for example enabled text chat during live video White House announcements. A few posts may be addressed by the presenter, but otherwise the impact of interaction is as short as the time it takes to be bumped off the screen by newer posts. The Japanese municipal government of Takeo moved its entire Internet site to a Facebook page (Valdez, 2011), with over 10,500 people who ‘like’ the page. Takeo’s posts are focused on service delivery or cultural updates, and advance very few opportunities to comment on government policy. Canada’s Public Health Agency used Facebook to inform the public about the H1N1 influenza and encourage peer norms of vaccination (Ascentum, 2009). One possible exception to this sample of low-influence Facebook engagement is Iceland’s recent constitutional revision process. A 2010 national forum brought together 950 randomly selected people to discuss Iceland’s constitution, which led to the creation of 25-person lay council that used its website and Facebook page to broadcast meetings and regularly receive feedback on draft clauses. The final product was delivered to the Icelandic parliament in July 2011 where it is now being considered by elected officials.

Deliberative public engagement has a rich theoretical and practical history that points to normative, substantive and instrumental benefits as well as related areas of concern.
Applying deliberation in online venues requires consideration of these overall benefits and limitations, while examining the unique considerations of social media-based engagement. Facebook is a venue of interest and experimentation for government-led public engagement but most current examples are focused on informing the public rather than fostering deliberation. The following section details a unique Facebook-based public deliberation project that may provide insight into the potential for cultivating deliberation in social media.

3.3 Facebook Deliberation on Vancouver Transportation Policy

Over 775 Vancouver-area residents participated in Exploring Vancouver’s Transportation Future in Facebook (EVTF), a June 2011 Facebook project focused on the transportation of people, goods and services in the City of Vancouver, British Columbia. EVTF and other public engagement efforts about the future of transportation in the City of Vancouver were held at the start of a policy cycle in order to tap into public priorities and values before developing a draft plan that, once passed by municipal government, will shape planning and investments to the year 2040.

Five hundred thirty-seven people added the EVTF discussion app, 212 completed the entry survey without adding the EVTF application to their Facebook profile, and 26 new participants contributed to the second phase of the online event (to a total of 142 Phase II participants). People also shared, liked or read EVTF activity in their Facebook news feeds or on friend’s walls but it is impossible to report the number of these exchanges due to technical constraints of tracking distributed discussions on Facebook that don’t explicitly include a hyperlink to a Facebook presence. Online surveys on a third-party website were administered at project entry, mid-point, and ends of Phase I and II.

EVTF was one of a number of engagement tactics employed by the City of Vancouver’s Transportation 2040 team, including in-person public presentations (270 attendees),

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5 The author is indebted to AmericaSpeaks, whose 21st Century Town Meeting model heavily influenced the design of EVTF. All positive and negative results of applying this model are the author’s alone. Disclosure: the author was an AmericaSpeaks employee and continues to be affiliated with the non-profit organization.
public events (1300 people), online surveys (239 respondents), stakeholder meetings (288 attendees), Twitter (134 followers), YouTube (2800 hits), and a website (5000 visitors) and online discussion forum.

![Figure 11](image1.png)

**City of Vancouver Transportation 2040 Engagement: % of Participants**

- Public events (1300 people): 3%
- Online survey: 2%
- EVTF (7%)
- Stakeholder meetings (288 attendees): 3%
- Public presentations: 3%
- YouTube hits (26%)
- Twitter followers (134 followers): 1%
- Website and discussion forum (5000 visitors): 46%

*Figure 11: Distribution of participants in Transportation 2040 public engagement by the City of Vancouver during spring and summer 2011, including EVTF which was led by the University of British Columbia. People who participated in more than one channel of engagement are counted multiple times.*

### 3.3.1 Who Participated

EVTF participants were recruited through targeted voluntary selection which resulted in 537 individuals who added the EVTF app. Although individuals self-selected, a number of recruitment methods and tools were used to target people demographically representative of Vancouver. The project developed organizational partnerships to support registrations that represent the diversity of Vancouver’s geography, demographics and travel modes. Recruitment tools included a project website, online survey, outreach partnership database, images and text for partners to share with their constituents, bulk email tool, online advertisements, a Facebook tell-a-friend tool and incentives for top recruiters. Although easy and inexpensive to implement, this ‘snowball sampling’ recruitment exhibited the method’s known limitation of producing a homogenous group on many demographic indicators (Ryfe, 2005). This result is
problematic because an essential measure of public engagement legitimacy is the extent to which participants are representative of the population most affected by the issues under deliberation (Fung & Wright, 2001; Lukensmeyer & Brigham, 2002; Rowe & Frewer, 2000).

Almost all EVTF participants are City of Vancouver residents (78%) and people living within commuting distance (20%) and they are fairly representative in terms of gender (57% women). However, EVTF participants do not represent Vancouver in many other important demographics as demonstrated by the following examples. Participants aged 25-34 years are overrepresented by 24% and those 65+ years are underrepresented by 12%. People of European ethnic origin are overrepresented by 27% and people of Asian ethnic origin are underrepresented by 24%. Participants of EVTF are wealthier and more educated than Vancouver’s demographic spread. EVTF participants’ Facebook use is often (more than half use the service several times a day) and long term (47% have been on the site for four years or more). Importantly, EVTF participants are much less likely to drive to work (15.5%) than Vancouver residents (57.6%) and much more likely to bicycle to work (20.0% versus 3.7%) (Statistics Canada, 2007). Therefore, the perspectives of drivers are not adequately represented in the discussions or results.

Figure 12: Vancouver, British Columbia, map indicating density of EVTF participants’ place of residence. Numbers in each circle indicate the number of participants in the surrounding area.
3.3.2 E-Deliberation App and Process

I worked with a Facebook app developer to invent the unique Facebook e-deliberation application for EVTF’s two phases. In Phase I, participants engaged in private, small group Facebook discussions over two and half weeks. Twelve groups of approximately 45 people shared personal stories about how they get around the city. Then, they discussed structural issues related to transportation – like health, affordability, economy, and the environment – after which each group chose two transportation policy areas to focus their discussion. Participants then worked together to evaluate related strategies and propose directions for the City’s Transportation Plan.

![Facebook App Screenshot](image)

Figure 13: Exploring Vancouver's Transportation Future (EVTF) Phase I landing page. Clicking "Let's Go" opened a new window outside of Facebook to request participant consent and administer an entry survey.

Discussion questions and background materials were co-developed with the City of Vancouver. Transportation policy areas and strategies presented in the background materials were heavily informed by public input during City of Vancouver’s Greenest City consultations.

City officials, transportation experts and UBC researchers played a discrete and responsive role during EVTF. Participants could contact these parties via an “Ask a
Transportation Geek” form in the EVTF app or by requesting information from their discussion facilitator. Replies would be returned via email and posted in the group’s discussion as appropriate. Excluding experts from participant discussions was a purposeful design choice in order to avoid specialist narratives dominating the discussion (see Edwards, Hindmarsh, Mercer, Bond, & Rowland, 2008).

Facilitation establishes norms and encourages participants to adhere to them (Ryfe, 2006) and this supports groups to reach deliberative outcomes (Mansbridge, Hartz-Karp, Amengual, & Gastil, 2006). Each discussion group had a dedicated facilitator whose role was to actively focus group discussions on the tasks and support a respectful discussion atmosphere while not taking a position on the issues. These skilled facilitators were recruited by inviting applications via three email listserves for people interested in dialogue and deliberation. The ten volunteer EVTF facilitators spent about 30 minutes a day providing micro-interventions by engaging with specific posts and macro-interventions by summarizing the discussion to date. Discussion group facilitators were supported with a detailed facilitator guide, orientation phone call, regular email communication among the facilitation team including the researcher, as well as a debrief call midway and at the end of EVTF. Facilitators had a differing levels of comfort with the technology.

Norms for the discussion were determined by the researcher based on her existing practice and distributed to participants in the event kick-off email. These ‘ground rules’ rules were: (a) Participate fully by contributing your own posts and reading what others write; (b) Keep posts on topic; (c) Be respectful and tolerant. Offensive discussion will be actively discouraged; and, (d) It’s okay to disagree, but don’t make it personal. Instead, use disagreement as a chance to understand better someone’s different perspective. Participant behaviour respected these norms, with a wide range of compliance with the ‘rule’ about how to participate fully.

Posts in Phase I were contributed by 38% of participants who opened an email from the
Twenty-five percent of EVTF participants who opened an email from the project contributed two or more posts. This rate of participation is a significant increase over typical participation patterns, which, according to Nielsen (2006), feature contributions from only 10% of online users while 90% ‘lurk’ or read without contributing. A measure of active users on Facebook pages shows a similar and more accentuated division, where 81.6% view the status update of a page, 0.6% commented on a status and 0.3% posted a new comment on the wall of a page (McCarty, 2011). Both the Nielsen and McCarty numbers reinforce the notable levels of involvement by EVTF participants.

Among people who posted during EVTF, the median number of posts was two. The average was 3.7 posts, inflated by high posting individuals like the participant who posted 36 times and another who posted 75 times. Two hundred and sixty-two people opened an email from EVTF but did not contribute a post, which was 1.7 times the number of people who did post.

Discussion group facilitators played a key role in moving from broad transportation strategy discussions to a more narrow set of actionable ideas that might be recommended.

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Footnote: Twenty-eight percent of EVTF registrants never opened an email from the project. Anecdotal reports suggest that in these cases, project emails were going directly to junk email folders. These participants therefore received no reminders to participate.
to the City of Vancouver. Facilitators reviewed all the ideas posted in their group in order to manually create a list of each unique transportation strategy that was discussed, elaborations on the idea, details of any disagreements and compelling quotes. Facilitators also recorded how many times an idea was raised, dividing the results into ideas that were ‘often discussed’ as well as listing the ideas that were ‘less often discussed’. This summarizing strategy is based on AmericaSpeaks’ 21st Century Town Meeting theme team process (Lukensmeyer et al., 2005). Participants considered their group’s summarized ideas for three days. The facilitator’s list of more frequently discussed ideas was then put to a vote among that group’s participants, via a non-Facebook online survey. A simple majority was used to determine the top three ideas from each group.

Figure 15: Small group discussions in Phase I of EVTF.
Top ideas from each Phase I group were integrated to avoid duplication in the final results (see Appendix C for a full list of participant recommendations). For example, “Develop mixed-use neighbourhoods that have amenities within a 5 minute walk while still maintaining a community/residential feel” was recommended to the City and incorporated the recommendations of two other groups: “Zone and re-zone for mixed-use smartly dense neighbourhoods”; “Promote density by ensuring small businesses exist to serve local neighbours, by supplying electric charging stations, and by not building more parking garages, etc.” Recommendations were elaborated with details of participants’ discussions, such as this quote for the mixed-use neighbourhood idea: “I grew up in a pretty residential-only area but we had a corner store and a cafe and that cut out a few trips to the mall for sure. Whether or not it would be viable retail, I'm not sure, but right now zoning generally doesn't even allow a corner store.”

The result of this summarizing, voting and de-duplication process was nineteen recommendations for Vancouver’s transportation future. Seven ideas emerged on cycling, five on public transit, three on land use, two on public space, and two on walking. None of the top ideas addressed goods movement, water transportation, street networks or demand management, which were also topics discussed by participants.

Phase II shared the small groups’ recommendations for public discussion in Facebook over ten days in late June 2011. During this second phase, each idea received likes and comments ranging from two to fourteen likes and four to thirteen comments. Unfortunately, due to a technical error the number of ‘shares’ was not measured although anecdotally it was reported that sharing stimulated rich discussion on users’ Facebook walls. Anyone on Facebook was able to add new ideas at this stage although the application design featured this as a secondary functionality in order to sustain the trajectory of recommendations born from participant discussion.
Figure 16: Phase II public discussion of recommendations resulting from Phase I small group discussions. Note, this administrator view has 'delete' and 'block' options that other users would not see.

A common method of measuring the quality of deliberation is asking participants to assess their own experience (Black et al 2011). To capture these perceptions as well as key demographic information, EVTF participants completed online surveys before adding the e-deliberation Facebook application, after a few days of the deliberation, upon close of Phase I and upon close of Phase II. The surveys were hosted on a third-party site and participants were led to the site via links in the Facebook app and project emails. Results of these surveys were aggregated and averaged to provide insights into participant demographics, sustainability priorities, perceptions of Vancouver sustainability policy,
Internet and Facebook use, and reflections on the deliberation process.

### 3.3.3 EVTF’s Impact

The City of Vancouver Transportation 2040 team wrote a four-page response (see Appendix D) to the nineteen recommendations, responding to each idea with related initiatives or plans. Participants were emailed this document and 46.9% of recipients opened the email, compared to a list average of 38%, and average open rates for email blasts for governments at 25.7% or non-profits at 20.0% (MailChimp, 2010). The City’s response was also posted on EVTF’s umbrella project website and Facebook group as well as the City’s public engagement website.

Transportation planners with the City of Vancouver have publicly committed to developing a draft Plan based on the input provided from the spring 2011 public conversations including EVTF, as well as on-going engagement with stakeholder groups. A second phase of public discussion will be held in 2012 to receive feedback on the draft Transportation Plan before it is finalized and presented to Vancouver City Council in the summer of 2012. The extent of EVTF’s policy impact is not measurable at the time of writing, nor would any upcoming analysis would be able to demonstrate causality. It would be possible however to measure overlap between EVTF recommendations and the final plan. As demonstrated below, participants are unrepresentative of Vancouver’s population so their recommendations should not be considered reflective of public will. The legitimacy of EVTF is not compromised by the lack of full adoption of participant recommendations because deliberative democracy does not require acting on resulting recommendations, even if participants are representative. Instead it is simply required that there is an authentic opportunity to influence the policy process, results are carefully considered, and decision-makers respond to what is contributed.

EVTF participants were satisfied with their e-deliberation experience, with 80% recommending the use of this type of Facebook project for other public discussions. Qualitative survey questions identified that participants particularly liked being able to hear the views of others and the ease of being able to participate when and where was
most convenient. There was less satisfaction with the modes of deliberation fostered by the app, with participants citing concern about the amount of time and limited functionality to support complex discussions.

In a closing survey of the Facebook discussions, participants were generally positive about the results and their experience (see Table 3). Participants agreed that they were satisfied with group decisions (4.5/7, where 1 is strongly disagree and 7 is strongly agree), that the final decisions were representative of group views (4.7/7) and their own views (4.8/7). They agreed that they enjoyed participating in the discussions (4.6/7) and believed the moderator was fair (5.9/7).

Importantly, participants believed their views were considered by the hosts of the Facebook event, the City of Vancouver and The University of British Columbia, rating it as 5 out of 7, where 7 was ‘very much considered’ by meeting hosts. Participants were practical about the extent to which outcomes of the conversation should influence the City’s decisions, responding with an average of 4.9 out of 7, where 7 was determine the City’s transportation decisions.

<table>
<thead>
<tr>
<th>Participant Evaluation of EVTF</th>
<th>Average participant rating out of 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am very satisfied with the group’s decisions.</td>
<td>4.5</td>
</tr>
<tr>
<td>Given the different views that you and your fellow group members held regarding transportation in Vancouver, the group’s final decisions represented the views of the members extremely well.</td>
<td>4.7</td>
</tr>
<tr>
<td>The group’s decisions are representative of my own views.</td>
<td>4.8</td>
</tr>
<tr>
<td>I enjoyed participating in discussions with my group.</td>
<td>4.6</td>
</tr>
<tr>
<td>The moderator was fair.</td>
<td>5.9</td>
</tr>
</tbody>
</table>

Table 5: EVTF evaluation survey results of participant views on deliberation at the close of small group Facebook discussions, where 1 is strongly disagree and 7 is strongly agree. N=61 to 76.

There are no known previous examples of government hosting a deliberative dialogue on Facebook, although EVTF draws heavily on previous uses of online deliberation in other online venues as well as face-to-face deliberative democracy methods.
3.3.4 Coding Methods

Discussion analysis is the most common direct measurement of deliberation quality (Black et al 2011). One popular discussion analysis scheme is the Discourse Quality Index (Steenbergen, Bächtiger, Spörndli, & Steiner, 2003) which closely follows the principles of Habermas’ discourse ethics. It is often used to analyze parliamentary debates. The DQI is criticized by some scholars as being too focused on normative ideals and process, instigating a recent revision to the DQI to examine other forms of discourse, outcomes of the deliberation and “real world” constraints of deliberative efforts (Bächtiger, Shikano, Pedrini, & Ryser, 2009). The updated DQI integrates a number of measures from another often cited discussion analysis scheme, Stromer-Galley’s deliberation quality measures (2007). Stromer-Galley’s measures are also influenced by the Habermasian notions of deliberation along with multidisciplinary theoretical and practical influences. In particular, Stomer-Galley’s measures draw from prior studies that have content analyzed group discussion. For this interdisciplinary perspective and its applicability for public discussion, this chapter uses Stromer-Galley’s scheme.

Participants’ posts in the Facebook discussion groups were downloaded and coded using methods informed by Krippendorff (2004). A codebook was developed that defines the measures’ categories and definitions. Due to financial and time restraints, only one researcher analyzed the content according to the codebook, while Krippendorff recommends having multiple coders analyze the discourse followed by a researcher’s assessment of agreement between the coding results. The EVTF coding process included multiple reviews by the researcher in order to approach consistency between results and the codebook.

The codebook for this chapter uses a modified version of Stromer-Galley’s (2007) content analysis scheme. Her scheme measures the quality of political deliberation in face-to-face and online groups, based on an interdisciplinary literature review of empirical study about political deliberation. Stromer-Galley identifies six elements as essential for political deliberation: reasoned opinion expression, references to external sources when articulating opinions, expressions of disagreement and exposure to diverse
perspectives, equal levels of participation, discussion topic coherence, and participant engagement with one other (and the process).

This chapter deviates in some minor ways from Stromer-Galley’s (2007) framework. The specific deliberation measures used here are consistent with Stromer-Galley but are reorganized into five categories instead of six. Reasoned opinion expression is combined with sourcing statements under a new category of opinion justification, which reflects the practicality that deliberation participants express themselves through a mix of rationality and other forms of expression such as personal narratives. As well, this chapter includes hyperlinks (online resources) as an indication of sourcing statements instead of references to mass media.

The coding categories used in this chapter are as follows:

- **Discussion coherence** measures the extent to which participants’ discourse focuses on the convening subject or on topics that emerge through interactions. Coherence impacts whether the deliberation can meet its objective of deep consideration of the topic and possible solutions.

- **Expressions of disagreement** are indications of opposition to – or support of – a prior statement. The existence of disagreement indicates listening and the existence of diverse opinions, two important qualities of deliberation.

- **Opinion justification** measures if and how participants support their expressed opinions. This measure includes reasoned opinions that draw on observable or empirically verifiable evidence, which is a traditional measure of rational deliberation. Opinion justification also parses the source of a statement into categories of background materials, hyperlinks, referencing others’ contributions and personal narratives; different sources invoke distinct deliberation qualities such as listening or fairness.

- **Engagement** with other participants is measured by reciprocal listening and speaking as well as by asking questions of one another. Engagement with the content is measured by asking questions about the topic of transportation in
Vancouver. Engagement with the *process* is measured by metatalk, or ‘talk about the talk’, including comments that identify some consensus or conflict, clarify their own or another’s post, reflect on the process of deliberation.

- Lastly, *equality* measures participants’ perception of equal opportunity to contribute to the discussion.

The unit of analysis is an important methodological difference between Stromer-Galley’s scheme and the coding of EVTF deliberations. Stromer-Galley unitizes contributions into individual thoughts for coding. In this paper, each post is treated as one unit and coded for each instance of its deliberative expression. For example, one post might consist of two transportation ideas with supporting information and a response to another person’s previous post. This post would then be coded as an instance of both opinion justification (reasoned opinion expression) and engagement (reciprocity). The limitations of this one unit approach is that some participants may post a number of short comments instead of longer ones, which would over-represent their contributions since they are counted individually instead of as one longer post. However, in practice the vast majority of EVTF posts were not fragmented in this way. Almost all posts were the participants’ full contribution at the time of posting.

To benchmark the results of EVTF’s deliberation, the analysis below includes references to studies that also measured deliberative qualities of online participant discourse. Monnoyer-Smith & Wojcik (2011) measure a process of mixed online and in-person engagement and find that online deliberation was more informed, justified and sourced than offline, but the offline setting permits more constructive discussion. Talpin & Monnoyer-Smith (forthcoming) also measure deliberative qualities of a mixed methods engagement and find that the dynamics of the discussion are more strongly influenced by the framing of the discussion than the online or face-to-face context. Some results of Stromer-Galley’s (2007) study of online public discussion are also included below. However, this chapter is not a comparative study, and these examples are provided for context only.
3.4 Measuring Deliberation

The following results describe the extent of deliberation present in the EVTF Facebook-based discussions during the first phase. Group discussion is the foundation for deliberative democracy (Black et al., 2011). Additional content analysis at the individual and group level is beyond the scope of this thesis. The second, public, phase of EVTF was also sufficiently different in format and intent from the small group deliberations that these posts likewise fall outside the scope of the analysis.

One hundred and forty-one EVTF participants contributed a total of 559 posts over fifteen days of small group discussion in June 2011 (see Figure 15 for distribution of posts by participant). Introductory discussions on ‘how I get around’ comprised 22.2% of posts, discussion on transportation context or ‘issues’ comprised 22.9% of posts, and the third discussion on ‘transportation strategies and proposals’ was the most voluminous at 54.8% of posts as well as extending over the longest time period at nine days.

3.4.1 Discussion Coherence

Participants had extremely high levels of focus on the topic of the engagement, namely transportation in Vancouver. Only two posts of the 559 stray from the convening topic. Some interactional topics, or subjects of discourse established through participant interactions (Stromer-Galley, 2007), emerge in the discussions including the impact of bike helmets on bicycle usage, education strategies for various transportation users, the need for a PR campaign to support sustainable transit, the need for cycling on the sidewalks, and bike lanes. However, these topics are all coded as discussions on the structuring topic because of the engagement’s goal to gather a range of priorities for early stages of city transportation plan development, as opposed to receiving feedback on an existing plan which would require a more narrow definition of the structuring topic.

Strommer-Galley’s (2007) study of online discussions used a more narrow definition of ‘on-topic’ in accordance with the deliberation’s specific purpose of “what to do with empty schools”, which resulted in posts that were more off-topic (59%) than on-topic (41%). It is therefore unclear if the EVTF experiment had extremely high topical
coherence due to discussion itself or due to its wide topical boundaries.

3.4.2 Expressions of Disagreement

Posts that express support for an opinion expressed by a prior speaker are coded as agreements. Twelve percent of posts display agreement with another participant’s contributions, often overtly signalled with terms such as ‘I agree’ or positive evaluations of another’s contribution. Agreement establishes and maintains smooth social relations amongst deliberators (Stromer-Galley & Muhlberger, 2009).

Disagreement demonstrates the presence of divergent perspectives. The quality of a deliberative exercise can be improved when disagreement provokes a participant to articulate their own opinion or simply exposes a participant to another point of view (Cappella, Price, & Nir, 2002). The results of a deliberation may also be improved by disagreement that stimulates participants to examine a range of perspectives and alternative solutions to the issue at hand (Fishkin, 1991; Nemeth, Brown, & Rogers, 2001).

Only 3.4% of EVTF participant posts indicate disagreement about transportation strategies. Participants also reported low levels of conflict and disagreement in the discussion (see Table 3). However, when disagreement did occur, participants felt that ideas were treated with respect and that they themselves were able to respect the point of view of those with whom they disagreed.

<table>
<thead>
<tr>
<th>Views on Disagreement</th>
<th>Average participant rating out of 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideas that weren't favoured by the group were treated with respect.</td>
<td>5.5</td>
</tr>
<tr>
<td>I had difficulty respecting the point of view of participants that I disagreed with.</td>
<td>2.1</td>
</tr>
<tr>
<td>There was plenty of conflict during discussion.</td>
<td>2.2</td>
</tr>
<tr>
<td>Disagreement was common during discussion.</td>
<td>2.6</td>
</tr>
</tbody>
</table>

Table 6: Disagreement survey results of EVTF participant views on deliberation at the close of small group Facebook discussions, where 1 is strongly disagree and 7 is strongly agree. N=61 to 76.
Other studies of online deliberation show a range of agreement and disagreement expressions. Talpin & Monnoyer-Smith (forthcoming) find similarly low levels of agreement (16.4%) but higher levels of disagreement (12.3%). Monnoyer-Smith and Wojcik find the opposite, where 33% of discussion forum comments indicate disagreement and 2.5% of comments agree (2011). EVTF’s comparatively low levels of disagreement may be due to the relative homogeneity of participant travel modes, or as also discussed below, due to social norms of conflict avoidance.

3.4.3 Opinion Justification
Deliberation requires participants to engage with one another’s opinions and ideas, which is much easier to do if the contribution is justified in some way. This measure examines the rationality of a justification and indicates its source.

3.4.3.1 Expression of Reasoned Opinion
Ideal deliberation features the exchange of opinions that are grounded in reasoned or empirically verifiable evidence. EVTF participants express reasoned opinions in 19.3% of posts, primarily through empirically verifiable evidence such as examples of transportation strategies implemented in other cities or descriptions of transportation strategy benefits and costs. Similarly, Talpin & Monnoyer-Smith (forthcoming) found that 33.3% of on-line messages relied on factual elements.

3.4.3.2 Sourcing Statements
Participants used a variety of sources to justify their contribution, including background materials, online materials, other participants’ posts and personal narratives.

3.4.3.2.1 EVTF Materials
EVTF developed background materials in collaboration with the City of Vancouver to support informed discussion among participants. Links to documents, slides and videos were sent via email and featured as buttons in the application. Moderators integrated background materials into the discussion by copying and pasting text from background documents as
Eighteen percent (18.1%) of EVTF posts cite these background materials. Instances of sourcing EVTF materials rise when participants were asked to respond to discussion prompts by email, on the Facebook page, or via moderators posts, such as “Take a look at the pedestrian strategies listed in the document or in the video. What do you like about these strategies? What would you change? What's missing?” Conversely, participants are much less likely to refer to these materials when the discussion did not feature these prompts or supports, such as the first discussion about personal transportation experiences. Background documents were posted with a hyperlink shortening service that reports on the click frequency and online referral source. At the start of EVTF, an overview of the project was downloaded 143 times, 84.6% directly from an email browser. A transportation topics and strategies document shared during discussions was downloaded 196 times, mostly from participants’ email but also 42.4% of the time from within the Facebook discussion. This suggests that integrating background materials into the design of the deliberation process has an important influence on level of use.

3.4.3.2.2 Hyperlinks
Non-EVTF online resources are featured in 4.5% of participant posts. Eleven of the 25 hyperlinks are blogs, videos, websites or links to books describing transportation solutions. Seven link to documents or websites with research and statistics, used to emphasize or demonstrate a point raised by the participant. Two links point to news media coverage of transportation related issues.

3.4.3.2.3 Referencing Other Participants’ Ideas
EVTF participants refer to the contributions of other people in their discussion group in 4.5% of posts. Twenty-two of these 25 instances reference the individual by name. This measure is an indication of
participants listening to one another, or reciprocity. It is also an indication of the influence of peer opinions. EVTF had low levels of listening and peer influence.

3.4.3.2.4 Personal Narratives
References to personal experience and stories occur in 15.2% of EVTF posts (excluding responses to the first discussion question that was explicitly about personal experience travelling in the city).

Personal narratives are the second highest source for opinion justification in EVTF, after background materials. This is in line with Stromer-Galley (2007), Dutwin’s (2002) and Ryfe’s (2006) findings that participants in deliberations primarily base their reasoning in personal experiences. Ryfe suggests that this helps participants overcome lack of knowledge and saves face in an environment that encourages conflict.

3.4.4 Engagement
Participant engagement with one another and the discussion content are hallmarks of deliberation measured in part by reciprocal listening and speaking. Engagement is also expressed via questions asked of one another and about the discussion content. Lastly, engagement can be measured by reflections on the process of deliberation itself.

3.4.4.1 Reciprocity
Reciprocity occurs when participants take turns speaking and responding to the claims of others (Graham & Witschge, 2003). A third of EVTF posts (32.2%) respond to what another speaker has said.

Participants had a mixed view of the discussion’s reciprocity (see Table 4). In a closing survey of the group’s discussions, EVTF participants somewhat agreed (4.6/7) that participants listened carefully to one another and respondents agreed (5.5/7) that that they themselves listened carefully to others’ point of view. However, EVTF participants also agreed (5.0/7) that the discussion felt like a
series of monologues and disagreed (3.2/7) that group members responded to their important contributions. This suggests that while participants were hearing each other’s contributions, deeper listening or engagement with one another’s contributions was rare.

<table>
<thead>
<tr>
<th>Engagement with Other Participants, Reciprocity</th>
<th>Average participant rating out of 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whenever I made an important point, another group member would respond to my comment.</td>
<td>3.2</td>
</tr>
<tr>
<td>When other participants shared their ideas, I listened carefully to their point of view.</td>
<td>5.5</td>
</tr>
<tr>
<td>When participants spoke, others listened carefully.</td>
<td>4.6</td>
</tr>
<tr>
<td>The discussion felt like a serious of monologues, with no real connection from one speaker to the next.</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Table 7: Reciprocity survey results of EVTF participant views on deliberation at the close of small group Facebook Discussions, where 1 is strongly disagree and 7 is strongly agree. N=61 to 76.

### 3.4.4.2 Questions

Another indication of engagement is whether participants ask questions. Questions about the contributions of fellow participants were in 2.3% of posts. About two-fifths of these questions are requests for ideas, information or experiences and the remainder are probing for clarification on another participants’ previously stated position. Asking questions about the topic occurs infrequently; 5.4% of posts ask for new ideas, input on one’s contribution or topical clarification.

### 3.4.4.3 Metatalk

Metatalk is posts about the discussion itself, or ‘talk about the talk’. This includes identifying some consensus or conflict, clarifying one’s own or another’s post, or reflecting on the process of deliberation (Stromer-Galley, 2007). Social talk is another aspect of process-oriented contributions.

EVTF posts do not reflect much metatalk. Clarifying one’s own comments occurs in 4.1% of the posts. All but two of the participants who contribute these
clarifications do so only once, indicating a distribution of this discourse type. No participants identify consensus or conflict in the discussion, nor do participants clarify another speakers’ prior opinion expressions.

Comments on the deliberation process are present in 5.2% of posts. Two thirds of these are focused on the technical functions of the deliberation app, more than half of which are posted by one individual who was both the most prolific contributor at 75 posts and who was using Internet Explorer 7, a browser notorious for its flawed interface with many websites. One third of process-oriented posts comment on or ask for clarification about the deliberation tasks.

Metatalk was also a rare phenomenon in Stromer-Galley’s (2007) framework, where these codes occurred in 0.1% to 0.7% of thoughts. The low occurrence of metatalk in EVTF and previous studies may suggest little interest or capacity in being involved in the ‘process’ aspects of the discussion, or perhaps a reliance on the facilitator.

3.4.5 Equality
Equality is a fundamental principle of deliberation, indicating whether participants have an equal opportunity to speak and if all contributions are equivalently considered. Scholars do not agree upon the measures of equality. Quantitative measures include frequency, duration and volume of participation. EVTF relied on participants’ qualitative perceptions to measure equality.

<table>
<thead>
<tr>
<th>Equality</th>
<th>Average participant rating out of 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I had plenty of opportunity to express my opinions.</td>
<td>5.7</td>
</tr>
<tr>
<td>Every participant had an equal opportunity to speak.</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Table 8: Equality survey results of EVTF participant views on deliberation at the close of small group Facebook Discussions, where 1 is strongly disagree and 7 is strongly agree. N=61 to 76

Results of the closing survey show that participants felt that they had plenty of
opportunities to contribute (5.7/7) and that all participants had equal opportunity to speak (6.0/7) (see Table 5). Only 14 participants indicated that they had inadequate opportunity to express their views during the discussion. Half of these participants cited the need for more reminders as something that would have helped them participate more in the discussion.

3.5 Discussion
This chapter measures the existence of deliberation among participants of a Facebook-based public engagement event on local sustainability policy. Using a coding scheme based on the work of Stromer-Galley (2007), results suggest a mixed outcome. EVTF discussions displayed extraordinarily high discussion coherence, coupled with significant instances of reciprocity and opinion justification, as well as strong participant perceptions of equality. However, important measures of participant engagement with the substance of one another’s opinions were lacking, including expressions of disagreement, referencing other participants’ ideas and asking questions about other’s contributions. EVTF therefore fostered the individual role in deliberation but was not very successful in eliciting deliberative exchanges among participants.

These conclusions corroborate with Hartz-Karp’s (2007) verdict:

<table>
<thead>
<tr>
<th>Deliberation Measure</th>
<th>Occurrence in EVTF Posts</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Discussion coherence</strong></td>
<td></td>
</tr>
<tr>
<td>Discussion coherence</td>
<td>99.6%</td>
</tr>
<tr>
<td><strong>Expressions of disagreement</strong></td>
<td></td>
</tr>
<tr>
<td>Expressions of agreement</td>
<td>12.0%</td>
</tr>
<tr>
<td>Expressions of disagreement</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Opinion justification</strong></td>
<td></td>
</tr>
<tr>
<td>Reasoned opinion expression</td>
<td>19.3%</td>
</tr>
<tr>
<td>Sourcing statements: EVTF materials</td>
<td>18.1%</td>
</tr>
<tr>
<td>Sourcing statements: hyperlink</td>
<td>4.5%</td>
</tr>
<tr>
<td>Sourcing statements: Referencing other participants’ ideas</td>
<td>4.5%</td>
</tr>
<tr>
<td>Sourcing statements: Personal narratives</td>
<td>15.2%</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td></td>
</tr>
<tr>
<td>Reciprocity</td>
<td>32.2%</td>
</tr>
<tr>
<td>Questions: about others’ contributions</td>
<td>2.3%</td>
</tr>
<tr>
<td>Questions: about the topic</td>
<td>5.4%</td>
</tr>
<tr>
<td>Metatalk: identify consensus</td>
<td>0.0%</td>
</tr>
<tr>
<td>Metatalk: identify conflict</td>
<td>0.0%</td>
</tr>
<tr>
<td>Metatalk: clarify another speakers’ prior opinion expressions</td>
<td>0.0%</td>
</tr>
<tr>
<td>Metatalk: Clarifying one’s own comments</td>
<td>4.1%</td>
</tr>
<tr>
<td>Metatalk: deliberation process</td>
<td>5.2%</td>
</tr>
<tr>
<td><strong>Equality</strong></td>
<td>Not measured in posts</td>
</tr>
<tr>
<td>Equality</td>
<td></td>
</tr>
</tbody>
</table>

Table 9: Proportion of deliberation measures in EVTF participant posts during small group Facebook discussions.
[It] is relatively straightforward to achieve the more mechanistic aspects of deliberation: identifying possible solutions, establishing evaluative criteria, and using those criteria to weigh the consequences of different options and choosing the best one. However, it has been brought out that the more qualitative elements of effective deliberation—deep analysis, critical listening, and judicious argument—have proved the greater challenge. (p. 19)

3.5.1 Informed and Justified Opinions

Participants often referred to EVTF background materials, which promotes equality in the discussions because all participants can draw on a shared base of information. Referencing shared background materials also enables participants who disagree with another’s claim to challenge the interpretation (Stromer-Galley, 2007). Moderators often included hyperlinks or excerpts of EVTF background materials when asking participants for feedback or ideas, making it easy for participants to make use of the materials on an ‘as needed’ basis in situ or making the case for participants to click on the links received in their email communication from EVTF. While high use of materials provided by the convener has the benefits described immediately above, it may also overly structure the discussion according to predetermined interpretations of the issues. It may also guide discussion away from creative idea exploration and towards premature agreement.

Participants often pointed to examples of transportation strategies used in other cities as well as related benefits and costs. The concrete nature of these posts provides a solid foundation for opinion exchange and informed participant choice-making. It is possible that EVTF background materials influenced this aspect of discussions, as these documents heavily feature examples from other cities and often present the information through an evaluative lens.

Personal narratives were also a common source for opinion justification. This is demonstrative of the experiential orientation many participants brought to their analysis of the topic of deliberation. The Facebook format may have encouraged the use of personal narrative as this is most common currency of exchange in the social network.
Only 4.5% of posts source non-EVTF online content, which is an unexpectedly low rate for an online conversation in which participants could easily make use of external information. It is possible that the majority of participants were more comfortable referring to ‘expert’ background materials provided by the EVTF and the City of Vancouver.

Interestingly, only two posts linked to news media websites, perhaps indicating a trend away from traditional information sources and towards a more distributed model of knowledge and expertise.

3.5.2 Diversity and Disagreement
Limited diversity amongst participants was likely influential in the lack of conflict over ideas about transportation in Vancouver. Participants had considerable homogeneity in a number of demographic measures as well as transit mode use such as non-car modes of transit for commuting to work (76.6%) and shopping (72%). This lack of diversity is problematic because, as Macedo (1999) describes, recognizing the merit in the opponents’ claims is one of the principal purposes of deliberation. Without opinion diversity and ensuing disagreement, participants are unlikely to examine and renegotiate interests, which is essential to discovering the best possible solution instead of simply selecting a commonly held preference.

One benefit of opinion agreement is the potential to go in-depth into specifics of a preference. For example, EVTF participants expressed disagreement on the issue of bike helmets. Participants of these discussions were all in support of bicycles but had a variety of opinions about the impact of mandatory helmets. These discussions resulted in a nuanced exploration of the issue.

3.5.3 Civility and Disagreement
E-deliberation practitioners have embraced the Internet's potential to realize a Habermasian deliberative sphere, but observers of social media and online communities
observe frequent hostility that is unparalleled in offline spaces. EVTF challenges this standard by finding that constructive conversation can be cultivated on Facebook, the most widely-used social network within Western democracies. The most overt example of disagreements during EVTF is:

I use those bike lanes Barbara⁷. Daily. And so do hundreds of other daily commuters. It may simply be that we are quieter and smaller/less visible than cars that you do not notice us.

Even this overt disagreement uses softening language, “it may simply be”. Other disagreement posts also include expressions of agreement. The conflict-avoiding nature of such expressions may be due to a mix of the attributed nature of Facebook participation and the social norms of politeness expected among strangers.

### 3.5.4 High Equality, Low Overall Participation

There were few signs of participants dominating the discussion, nor did many participants feel they had an inadequate opportunity to express their views during the discussion. However, most participation was minimal (see Figure 15). The variance in participation rates may be attributed to factors cited in participant evaluations such as competing priorities, ease of use of technology and lack of reminders to participate. Affordances of the e-deliberation method may have also impacted the opportunity for equality in deliberation by favouring people who are familiar with Facebook apps and navigating to websites via email links.

In an online space, participation can also occur through ‘lurking’, which is reading and considering ideas under discussion without posting. Similarly, in-person event may have passive listeners. The existence of lurking participants in EVTF is demonstrated by 21% of respondents to the closing survey who said they never contributed to the group discussion, yet felt involved enough to respond. It is therefore useful to consider the role and needs of non-active participants in deliberative projects.

⁷ Name changed to protect participant privacy
3.5.5 Deliberation Process

Best practices of face-to-face deliberation (Rowe & Frewer, 2004) were followed in developing EVTF (see Table 1) and this was mostly a benefit to deliberation quality. The process by which participants learned and shared their opinions was based on structured conversations used by public deliberation organizations like AmericaSpeaks and National Issues Forum. However, it would have been advantageous to reorient the discussion process towards the ‘social’ nature of Facebook. EVTF engaged people in a high commitment mode, where participation required reading background materials and previous posts then responding to the discussion question at hand. The next generation of e-deliberation could offer fun, low commitment opportunities for participation with friends and communities of interest such as voting and seeing other’s responses, invite a friend, or play a simple game. Medium commitment participation might encourage people to respond to existing ideas submitted by conveners or other participants, posting a hyperlink, or numerically evaluating ideas and tradeoffs. High commitment social e-deliberation might distribute the discussion onto many people’s walls where discourse could unfold within Facebook communities. As well, opening up multiple yet connected deliberations, instead of ‘tunneling’ (Fogg, 2003) participants through a step-by-step process as is often done in face-to-face deliberations, would be more responsive to individual interests and is a latent advantage of Facebook’s asynchronous nature. Experimenting in this way may improve the quality of deliberations, particularly on measures of engagement and expressions of disagreement, by relaxing the requirements for participation and attracting people who may be hesitant to participate in traditional policy discussions.

The sparse occurrence of metatalk in EVTF and previous studies may suggest a low interest or capacity in being involved in ‘process’ aspects of the discussion, and perhaps a reliance on the facilitator. It is also possible that the Facebook format may limit reflective contributions on the process because the short and shallow discussion threads can challenge participants to easily follow the conversation’s overall directions. Related, EVTF’s online written format makes it easy to revisit previous contributions, lessening the need to request clarification for others.
3.5.6 Further Research

A unique e-deliberation app was developed for EVTF in order to control functionality, look and feel and to ensure a stable platform for the project’s duration. Research into the potential use of native Facebook tools for e-deliberation is an important area to explore; positive results could significantly increase the potential reach and application of deliberative public engagement in social media.

EVTF featured limited social integration in order to cultivate a ‘safe’ deliberation space, where participants could experiment with ideas without concern for being ‘heard’ by people outside of the discussion. Therefore, EVTF small group discussion activity did not appear in users’ news feeds. Participants cited this as a barrier to participation, likely because the absence of these notifications runs counter to Facebook norms. It is possible, and worth exploring, the impact of privacy thresholds on willingness to participate in social-media based deliberations as well as comfort in syndicating one’s activities within a deliberation. For example, it may be that those who allowed the EVTF application to access their Facebook profile may have a lower privacy threshold than those who filled out the entry survey but did not add the application and thus wouldn’t mind seeing their discussions shared with their Facebook friends. Further research on this hypothesis would help determine the best way to socially integrate public participation activities into social media.

Representative participant recruitment is an area of ongoing attention for online and in-person deliberative public engagement. A scientific random sample can engage a demographically representative group but doing so in social media would chafe against its nature of peer-to-peer communication. Future e-deliberation efforts in social media would benefit from leveraging the power of networks to connect diverse pre-existing constituencies for high quality deliberative public engagement. Engaging a representative group would also provide the opportunity to measure the impacts of diversity on instances of disagreement in a social media based deliberation.

Lastly, further research might explore the influence of the moderator, who may have
supported high discussion coherence by modelling and inviting discussion focus on the structuring topic.

3.6 Conclusion

This chapter demonstrates that there is significant potential for public policy deliberation in a social media space. Both the success of the individual’s deliberative role and the challenges of group aspects of deliberation may be attributed to EVTF’s technical and engagement process properties. Technical aspects of EVTF such as one-depth hierarchy of discussion threads and lack of integration into users’ news feeds may have impeded group conversation and return visits to the app. On the other hand, technical properties such as a familiar interface, use of hyperlinks to integrate background materials, and EVTF’s location within a popular online space likely supported successful individual participation. Design choices about the process of engagement had a great deal of impact on who signed up, the attractiveness of repeat participation and the degree of reliance on others for a personally satisfying experience. Choice-making by vote rather than consensus, asynchronous activities and use of a moderator are all examples of engagement process design that impacted the individual and group aspects of EVTF’s e-deliberation. Successful deliberation on Facebook and other social media spaces therefore requires further attention on engagement process design, participant recruitment and technological development.

Deliberation is an essential component of good quality public engagement. As the public spends more of its time online, governments must consider how to best make use of cost effective and popular tools such as Facebook. EVTF demonstrates that there is potential for deliberation within social media and this deliberative promise should be pursued with a variety of popular social platforms, with the awareness that group aspects of deliberation may be more challenging to cultivate.
4 Conclusion: Social Media Viability for Deliberative Public Engagement is Dependant on Affordances and Design Choices

My first research hypothesis is that locating a deliberative public engagement on Facebook can address some key challenges of in-person deliberation. The results of my research are both compatible with and contradictory to the literature. Deliberative democracy scholars point to a number of logistical barriers of face-to-face engagement such as the ability to scale up to large numbers of participants (Fishkin, 1991; Friedman, 2006; Parkinson, 2003), achieve geographic representation over vast areas (Niemeyer et al., 2008), provide low-cost mechanisms to meet regulatory requirements for public comment (Schlosberg & Dryzek, 2002) and offer access to diverse demographic populations (Ryfe, 2005). Social media as a venue for public engagement does have the capacity to address all of these challenges, although the degree of success is dependent on technical, social and organizational design choices. EVTF attracted large number of participants, had wide geographic reach to include Vancouver commuters as well as residents, was delivered at a low cost and somewhat expanded the overall diversity of people engaged in conversations about Vancouver transportation. However, EVTF did not engage representative demographic populations, nor did it foster deeply deliberative exchanges among participants.

Participant representativeness of the population most impacted by the issue under deliberation is essential to an engagement project’s legitimacy (Fung & Wright, 2001; Lukensmeyer & Brigham, 2002; Rowe & Frewer, 2000). The disappearing digital divide according to measures of ethnicity, income and education (Foth, 2006; Smith, 2010a) suggests that online engagement has the potential to reach a more representative group than in-person deliberations (Schlosberg & Dryzek, 2002), which trend towards people more educated, wealthy and white than the communities they come from (Fung, 2003). However, my research indicates that there are significant demographic trends of social media users (as opposed to Internet users in general) that are unrepresentative of the wider population, including income, education and age. EVTF also failed to achieve representation on additional demographic indicators such as ethnicity and mode of
commuting. It is inconclusive though if these demographic imbalances are a result of Facebook’s affordances or, more likely, social and organizational choices made in designing and implementing the experiment. For example, greater capacity to develop relationships with organizations and thought leaders of underrepresented communities could alleviate the imbalance, as has been demonstrated through the work of AmericaSpeaks (Lukensmeyer et al., 2005). It is also possible that these demographic imbalances can be fruitfully addressed, as would be the case if social media based engagement is used in conjunction with other online and in-person participation methods that reach complimentary publics.

My second research hypothesis is a subset of the first, namely that social media can host deliberative discourse among participants of public engagement. Here, my work confirms the literature’s prognosis of mixed results for deliberative discourse in both in-person and online public engagement (Delli Carpini, Cook, & Jacobs, 2004; Janssen & Kies, 2005; Ryfe, 2005). A new angle on this conclusion is the distinction that EVTF found between individual roles and group roles in achieving deliberativeness. Individual roles in deliberation are formative to the existence of discussion coherence, opinion justification, engagement with the topic and equality. EVTF results indicate that the discussions were strongest in these aspects. EVTF was weakest on deliberative qualities reliant on group interactions such as expressions of disagreement, and engagement with other participants. The distinction between individual and group roles for achieving deliberativeness may be due to design choices that set the stage for asynchronous discussions, lack of social connection between participants, lack of participant diversity and low rates of repeat posting.

### 4.1 Improving Deliberation on Facebook

EVTF was successful in engaging large numbers of people who became informed, shared their opinions and informed municipal policy. The use of small group discussions suggests it is possible to scale up to thousands or tens of thousands of participants, as long as facilitators are available and some aspects of the project are automated such as participant group assignment and determining voting results. However, the shortage of
diverse participant engagement with one another in an in-depth manner suggests that a number of improvements to approach the ideals of deliberative public engagement could be made.

4.1.1 Technology

The EVTF deliberation app had a number of technical challenges, such as inability for some users to see comments on posts, to access the app from their mobile phones, or to log in without having to see a popup survey already completed. Participants reported that technological challenges impeded their satisfaction with the experience. Such challenges may have also influenced some participants to not return to the app. While there will always be technical bumps in the delivery of new and ambitious technology, these ‘bugs’ can be reduced through adequate development time and user testing.

4.1.2 Depth of Participant Commitment

To fully participate in EVTF, one needed to return often and do a lot of reading. This depth of commitment may not be appropriate for some participants or for the social media venue. Improvements in the future should offer multiple levels of engagement, as discussed in section 3.5.5.

4.1.3 Privacy Settings and Social integration

EVTF did not broadcast the activity of small group discussions to participants’ news feeds in order to preserve a ‘safe’ space for exploring ideas. However, participants requested more reminders to participate, including this feature. Integration into the social aspects of the channel is an area for future improvement of social media based deliberations.

4.2 Implications for Other GCC Channels

EVTF is the first Greenest City Conversations (GCC) channel to complete its research. A number of EVTF results may be of use to consider in the work of subsequent channel research:

• Commitment. The nature of social media may not give rise to expectations of
deeper level of commitment. In-person methods may be more accepted for deeper commitment, partially because participants commit to a time bounded experience.

- **Desire to participate digitally.** Over 700 people were involved with EVTF, demonstrating a large interest in online opportunities to participate in discussions about sustainability.

- **Group dynamics.** Design the engagement to foster group interactions not just the conditions for an individual to fully participate.

- **Diversity.** Participant self-selection results in participants that are wealthier, more educated and less ethnically diverse than the communities from which they come.

Additionally, it may be useful for other GCC channels to consider participants’ evaluation of their EVTF experience:

- **Strengths reported by participants:**
  - Co-participants. Meeting others who were interested in the convening topic.
  - Convenience. Participating at a time and location of their choosing.
  - Exposure to new ideas. Learning new information.
  - Moderator. Discussions being supported by a neutral facilitator.
  - Expressing opinions and a chance to be heard. Being asked for their opinion and knowing the opinion would be listened to.

- **Limitations reported by participants:**
  - App functionality. Technical challenges of using EVTF worsened their experience.
  - Lack of reminders to participate. Participants requested integration with the Facebook news feed. As well, there was poor delivery of email communication from EVTF.
  - Insufficient time to complete tasks. Tasks were too complex for the amount of time participants had allocated or had available.
  - Participant homogeneity. Participants expressed a desire for more diversity among their group members.
• Mix of positive and negative evaluations from participants:
  o Deliberation process. Some participants liked the step-by-step format of the deliberation, the questions that were asked or the way decisions were made. Others were unclear at times about the goal of a task, the reason for having multiple tabs or pages in the application, or confused about the best way to participate.
  o Locating the deliberation on Facebook. Some participants were very pleased with the integration of this public engagement opportunity with a social media service. Other participants were critical of the use of a privately owned space that was not available to members of the public who did not wish to sign up for Facebook.

4.3 Further Areas for Research

The trend towards greater numbers of people using social media and greater numbers of available services argue for ongoing research in the field of social media based deliberation. Future research might explore the impact of holding parallel discussions within and outside of Facebook, in recognition of the facts that many people do not have Facebook accounts, are not active users or may not wish to use Facebook for public engagement activities. Another approach might examine technology that allows for discussion integration across various social media platforms. A second area for further research is how to hold deliberations in multiple languages. The simplest approach is to hold parallel discussions in the languages spoken by target participants, however this limits communities’ exposure to one another. Investigation is required into technology that allows participants of different languages to hold one conversation. A third important area of research is the use of video as a peer-to-peer communication tool in deliberative public engagement. Canadians watch the most videos per viewer in the world at an average of 190 video per month (Piech, 2011). One-third of video viewers comment on videos and 40% upload videos (ibid). The public’s familiarity with the medium, coupled with its greater emotivity compared to text, suggests significant potential for use in deliberative engagement.
4.4 Facebook is a Promising Venue for Deliberation

Facebook is a promising venue for deliberative public engagement, but celebrations of its potential must be balanced with careful consideration of the social network’s limitations. Facebook should continue to be considered for public participation efforts because it can engage large numbers of people, attract some demographic groups that are typically underrepresented in public engagement efforts, support informed and reflective discussion, and offer satisfaction with government-hosted public engagement. These outcomes are not assured however by simply situating engagement within social media such as Facebook. Outcomes of public engagement in social media are also heavily influenced by technical, social and organizational design choices made by deliberation conveners (Coleman & Gotze, 2001), as discussed above. As well, the properties of the social networking site itself have a direct influence on who participates, how they participate and the outcomes of engagement. EVTF demonstrates that there is potential for public deliberation within social media and argues that this deliberative promise should be pursued with Facebook and other popular social platforms.
References


Leighninger, M. (2006). *The next form of democracy: how expert rule is giving way to shared governance-and why politics will never be the same*. Nashville Tenn.


Appendices

A. City of Vancouver Consultation Timeline
Exploring Vancouver’s Transportation Future

An innovative Facebook event for Vancouver for residents and commuters to give advice to the City of Vancouver, learn and help shape the future of transportation in our city.

May 31 – June 14, 2011

Go to: apps.facebook.com/VanTransportFuture

How Your Participation Makes a Difference

You want a safe, reliable and affordable commute. You also want a healthy, prosperous and livable city.

This groundbreaking Facebook conversation is your chance to tell the City of Vancouver how to plan for both.

Public input received this spring will be integrated into a draft plan by the City of Vancouver, which will then go back to the public for feedback in 2012.

At this early stage, specific programs and projects aren’t yet being decided. This conversation is about setting directions for the draft Plan.

Why Talk Transportation?

We all travel around the city, for work, school, play, shopping and more. What kinds of transportation actions and investments will help Vancouver be a city where it’s easy, safe, sustainable and affordable to get around - today and in the future?

The City of Vancouver is about to update its Transportation Plan and they are asking the public for direction. The Plan will set goals to the year 2040, and guide the City’s transportation decisions for the years ahead.

This Facebook event is an important part of setting the strategic direction for Vancouver’s transportation over the next 30 years. Thank you for participating!

From May 31 - June 14, participants will meet in small discussion groups to:
1. Discuss key issues and share your own transportation stories
2. Propose strategies for the City to feature in the Transportation Plan

Starting June 15, discussion groups will:
3. Promote their recommendations in a public Facebook page
Exploring Vancouver’s Transportation Future

An innovative Facebook event for Vancouver for residents and commuters to give advice to the City of Vancouver, learn and help shape the future of transportation in our city.

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1. Discuss key issues and share your own transportation stories
2. Propose strategies for the City to feature in the Transportation Plan
Starting June 15, discussion groups will:
3. Promote their recommendations in a public Facebook page
Planning to Be a Great Transportation City

Vancouver will continue to grow over the next 30 years, and the City’s goal is to accommodate the majority of trips in Vancouver with sustainable travel choices — walking, cycling and transit — while also supporting a strong local economy.

As the City develops the 2040 Transportation Plan, we’re not starting from scratch, but building on the successful implementation of the 1997 plan and the ideas that came out of the recent Greenest City planning process.

Vancouver’s Transportation Plan will also take into account existing plans and ongoing partnerships with Metro Vancouver, Translink, the provincial and federal governments.

Transportation Plan Goals and Targets

The 1997 Transportation Plan set targets for 2021, the majority of which were achieved by 2006. Much of the success to date has been about good land use and transportation decisions and investments.

Vancouver’s updated Transportation Plan will support and build upon the Greenest City directions, as well as recent regional and provincial targets. It will also set new targets out to 2040, and identify indicators to help us track our progress on the way.

<table>
<thead>
<tr>
<th>1997 Plan</th>
<th>Targets: 2021</th>
<th>Most Objectives Achieved 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greenest City 2011</td>
<td>Targets: 2020</td>
<td></td>
</tr>
<tr>
<td>Province 2008</td>
<td>Targets: 2020 / 2030</td>
<td></td>
</tr>
<tr>
<td>TransLink 2007</td>
<td>Targets: 2040</td>
<td></td>
</tr>
<tr>
<td>TALK VANCOUVER</td>
<td>Targets: 2040</td>
<td></td>
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</tbody>
</table>

Provincial transit targets focus on increasing transit use in Metro Vancouver, from our current 12% of all trips to 17% in 2020 and 22% in 2030.

The province’s greenhouse gas targets are to achieve a one-third reduction below 2007 levels by 2020 and an 80% reduction by 2050.

TransLink’s regional transportation target is to have over half of the region’s trips be taken on foot, bike, or transit by 2040. It also prioritizes locating the majority of jobs and housing in the region along streets designed for frequent transit use.

Translink’s targets support aggressive reduction of greenhouse gas emissions from transportation, in support of federal, provincial and regional targets.
Make the majority (50%+) of trips on foot, bike, and transit

Eliminate dependence on fossil fuels, including targets to reduce greenhouse gases 30% from 2007 levels by 2020, and 80% by 2050

Breathe the cleanest air of any major city in the world

Building on Vancouver’s Successes

One great trend for Vancouver is that while population, jobs, and number of trips continue to grow, the number of cars entering the city is declining.

This is true for at a citywide scale and for the downtown, where the numbers are even more dramatic.

So for the past 15 years, Vancouver has been accommodating growth, not by driving... but by walking, cycling, and public transit.

Projected Growth

Over the next 30 years or so, we’re anticipating well over a 130 thousand new residents, and close to ninety thousand new jobs, bringing more trips and more life to the city. If past trends continue, we’ll be older and even more diverse in 30 years.
Working Together for Transportation

City of Vancouver’s Role
- Act directly on streets, sidewalks, public spaces, built environment
- Support regional & provincial plans
- Provide leadership to other municipalities
- Advocate and partner with outside agencies on transportation actions outside City jurisdiction
- Empower citizens

Partnerships to reach 50%+ Trips by Walking, Cycling and Transit

Through City-led initiatives, the City of Vancouver believes it can increase the share of people who walk and cycle to about 25% of all trips by 2020.

The number of people travelling by transit needs to grow too, but right now Vancouver transit demand exceeds supply in many areas.

Public transit isn’t owned or operated by the City, so key improvements will require support from TransLink and other partners.

Funding Vancouver’s Transportation Improvements

Implementing transportation improvements often depends on finding necessary financing. Transit improvements are among the most expensive and important, and these are likely to continue to come mostly from the Province.

The City of Vancouver will allocate existing funds and may work to secure new funds in support of the actions and investments needed to implement the completed Plan.

Goals, Purpose, Key Ideas - Exploring Vancouver’s Transportation Future 105
Vancouver’s Transportation Priorities: Pedestrians First

Vancouver's 1997 Transportation Plan prioritized active and sustainable transportation choices over automobile use. For the future, walking will continue to be Vancouver’s number one priority.

Goods movement and service delivery are ranked above personal automobile use because they are the cornerstone of Vancouver’s economy.

Transportation Challenges

A group of Vancouver’s transportation thought leaders and experts recently met at a meeting convened by Carbon Talks, which is a dialogue group looking to advance Canadian global competitiveness by shifting to a low-carbon economy. Participants discussed Vancouver’s transportation past and future and identified the following key challenges:

- Funding for public and sustainable transportation
- Aging population with specific accessibility needs
- Smooth integration of different transport choices (e.g. car share services at skytrain stops)
- Enough capacity for public transit and commercial uses, including transit on the Broadway Corridor
- Integrating the City of Vancouver Transportation Plan within a regional context
- Changing behaviours is not easy, and is an important part of the situation
- Vancouver’s vulnerability to environmental and political changes
- Impacts of transportation on social equity
- Safety in a densely populated and highly travelled city
- Competing interests of agencies involved
- Air quality
Important Background Information for Exploring Vancouver’s Transportation Future


Watch a video about promising strategies for Vancouver’s transportation future [http://youtu.be/njS6i5TRae0](http://youtu.be/njS6i5TRae0)

Read short description of key issues impacting transportation (economy, health, environment, affordability and community) [http://talkvancouver.com/document/show/68](http://talkvancouver.com/document/show/68)
C. Transportation Ideas Recommended During EVTF

Recommendations from Small Group Discussions

Participants of Exploring Vancouver’s Transportation Future met in small Facebook groups to discuss and recommend transportation strategies to the City of Vancouver.

The most often discussed ideas of each group were put to a vote among that group’s participants, resulting in the top three ideas from each group. All the top ideas were integrated, amalgamating any duplications, resulting in nineteen recommendations for Vancouver’s transportation future.

These nineteen ideas were publicly discussed on Facebook for one week in late June 2011. The right hand column in the table below shows each idea’s social activity (likes and comments) during this public sharing.

<table>
<thead>
<tr>
<th>Cycling</th>
<th>Improve and expand bicycle routes and infrastructure</th>
<th>5 likes</th>
<th>8 comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bicycle routes could be improved through reducing car traffic on shared routes, expanding separated routes and road maintenance.</td>
<td></td>
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<td></td>
<td>“There’s a lot of support for cycling in the North half of the city, but once over the big hill at 37th, it really is downhill for cyclists.” Consider improving the Canada line bridge exit to a truck route, Kent Avenue Bikeway remaining cyclist right of way, and Southwest Marine corridor to UBC.” A lot of people would appreciate these routes being made safer for cyclists.”</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cycling</th>
<th>Invest in the construction of more separated, and protected, bike lanes, which benefit drivers’ comfort and cyclists’ safety.</th>
<th>14 likes</th>
<th>9 comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“I think making some streets bike-use only or having designated lanes is a great way to make people feel safer.”</td>
<td></td>
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<tr>
<td></td>
<td>“It is very important that these improvements are not at the expense of pedestrians.”</td>
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<tr>
<td></td>
<td>And, ensure that separated bicycle lanes don’t slow down buses. “Otherwise you’re just inconveniencing one sustainable transport mode, for another.”</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transit, Cycling</th>
<th>Develop an education campaign aimed at improving attitudes towards public transportation and to encourage cycling.</th>
<th>6 likes</th>
<th>7 comments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Address the negative opinion some people have about public transportation as “the loser cruiser” and help increase people’s support and use of cycling and walking.</td>
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</tr>
<tr>
<td>Topic</td>
<td>Suggestion</td>
<td>Likes</td>
<td>Comments</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Cycling</td>
<td><em>Raise awareness about bike lanes and their safety features. Map commuter and recreation biking networks.</em></td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>“Raising awareness of the excellent residential bike routes that form a network through the city would be a good start. Many people think you have to ride on arterials like Broadway, when beautiful 10th Avenue awaits you one block up.”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cycling</td>
<td><em>Install traffic signals (or at least stop signs for vehicle traffic) at locations where bike (on bike routes!) have to cross busy streets.</em></td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Cycling</td>
<td><em>Improve bicycle facilities to include secure bike and gear storage, and upgrades like roof systems over the new bicycle corral, and change and shower facilities.</em></td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Perhaps install video surveillance at bike racks and lockers.</td>
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<td></td>
<td>Improve bicycle security particularly downtown and at schools.</td>
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<tr>
<td></td>
<td>It is very important to have a safe place to lock up your bike when you reach your destination.</td>
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<td></td>
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<tr>
<td>Cycling, Walk</td>
<td><em>Invest in safety education programs for everyone on the road.</em></td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>&quot;People feel (rightly) that cars do not pay attention to cyclists, but also drivers feel that cyclists flout rules (running lights, cutting people off). Ensuring education for both cyclists and drivers about road rules, sharing the road, and road safety is essential.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>Increase knowledge about pedestrian safety.</td>
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<tr>
<td>Land Use</td>
<td><em>Continue to focus on liveability and sustainability – densification, walkability, and compact communities are key to Vancouver’s future and are achievable.</em></td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Land Use</td>
<td><em>Develop mixed use neighbourhoods that have amenities within a 5-minute walk while still maintaining a community/residential feel.</em></td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>This kind of development promotes active transportation and public transit ridership and reduces emissions.</td>
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<tr>
<td></td>
<td>“I grew up in a pretty residential-only area but we had a corner store and a cafe and that cut out a few trips to the mall for sure. Whether or not it would be viable retail, I'm not sure, but right now zoning generally doesn't even allow a corner store.”</td>
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<tr>
<td></td>
<td>“I live and work in downtown and I LOVE the fact I can walk to work every morning - via a coffee shop or the seawall if I wish. Mixed use density makes it possible”</td>
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<td></td>
</tr>
</tbody>
</table>
| Land Use | **Build new high density developments with a mix of uses to support easy access to amenities and green travel options.**  
There was a range of opinions about how density should be achieved:  
• Concentrate new development in the neighbourhoods close to downtown to support cycling and walking to work  
• Concentrate development near intersections with transit service (nodal development) to make daily needs a part of transit travel  
• Concentrate development along corridors (linear development) As a goal of getting all residents within a 5 minute walk to basic amenities and transit. | 2 likes | 6 comments |
| Public Space | **Develop car free zones by closing specific streets** (e.g. Commercial Drive).  
“We shouldn’t be afraid to have more car-free zones, which foster a sense of community because of the increased face to face contact. This in turn encourages people to frequent these areas.”  
Make sure that transit can still access these area within a block or so to meet the needs of people with reduced mobility. | 15 likes | 12 comments |
| Public Space | **Improve children’s’ transportation to and from school by creating car-free blocks, paths, or zones.**  
This can create safer active transportation for families, reduce carbon emissions, and help the next generation to think critically about the impact of their daily transit choices.  
“I think schools get stuck in this circle of parents driving their kids to school because it's not safe to let them cycle/walk, but the reason it's not safe is because of the chaos of all the parents dropping their kids off by car. One way to stop that cycle is to ban cars from the school area.” | 7 likes | 6 comments |
| Transit | **Relieve the over-crowding of buses and trains during peak times.**  
Expand rapid transit in the Broadway corridor  
Extend the Canada Line trains and provide additional buses on busy routes  
Incorporate more express routes  
“More than once I have been left at a stop with my stroller because the couple of accessible spots were full.” | 4 likes | 11 comments |
| Transit | **Ensure transit improvements keep pace with growth of use.** “It costs double the money for a [transit] commute that takes twice as long now as in 1993.” | 2 likes | 7 comments |
Transit

**Develop transit systems that minimize traveling time**, by looking at factors that impact boarding, riding and leaving the vehicle.

Consider more dedicated bus lanes, more direct point-to-point routes.

Consider a free-to-ride system to decrease boarding time.

Offer user friendly schedules.

Transit

**Prioritize transit solutions for suburban commuters coming into Vancouver, especially rail.** Suburban transit options must be reliable, affordable and more frequent.

"There have been improvements (i.e. Canada Line), but as more and more people move out of the centre core (note housing prices), we need to make it easy and fast for people to get in and out of the city."

“The Skytrain is great but then you get off and travel slowly on buses.”

Consider a circular route with radial connectors and more light rail systems to places such as the southern Fraser Valley.

Transit

**Find ongoing sources of revenue for funding and expanding public transit, both for crowded Vancouver lines and commuter routes.**

Leverage increased land value use from density developments to correspondingly increased property taxes

Explore 'third-party' sources for financing.

Walking

**Widen sidewalks and remove pedestrian obstacles** such as ill-placed benches. **Revisit bylaws** to create hanging signs instead of sandwich boards that pedestrians have to dodge.

This will get more residents and visitors walking and reduce carbon emissions while promoting the healthy benefits of active transportation.

“Wider sidewalks would be a dream! I visited Portland OR recently and their downtown sidewalks are so spacious - room for all the fixtures/furniture/bus stops and still plenty of space for strolling. I'm jealous.”

Walking, Cycling + Transit

**Channel a greater proportion of public funds into developing walking, cycling, and transit infrastructure** (and remove subsidies that prop up automobile travel).

This strategy could discourage car driving and increase transit use and cycling and walking

"The automobile is the most heavily subsidised mode, followed by transit, walking and finally cycling. The province did a study many years ago that showed that automobile use in the Lower Mainland was subsidized by $6.6 billion per year. See: http://bc.transport2000.ca/learning/background/transport_"
During the public discussion that closed the Facebook event, anyone could add their own ideas about Vancouver’s transportation future. The number of new ideas received is partially limited by a purposeful application design that prioritized public discussion on the group recommendations, rather than encouraging new ideas from individuals. Below is a high level summary of the additional twelve ideas submitted during this public event.

### Topic | Submitted Idea | Social
--- | --- | ---
Demand Mgmt | Implement Smart Parking like San Francisco’s program. | 0 likes | 0 comments
Land Use | Make the downtown core could be entirely car free, while totally open to train, bus, cycling and walking traffic. | 0 likes | 0 comments
Cycling | Institute bicycle rolling stops at stop signs, where bicyclists can slow down and roll through a stop sign if there is no other traffic present. | 0 like | 1 comment
Cycling | Do more to discourage bike theft such as a "Bait Bike" program with ICBC at known theft hotspots and ensure VPD take a hard line with bike thieves. | 0 like | 1 comment
Other | Amend City ByLaws to include and support boarding and blading. | 1 like | 0 comments
Other | Encourage use of scooters and motorcycles which can help reduce road congestion. Amend City ByLaws to allow exclusive parking of 2-wheeled vehicles at the ends of each block. | 0 likes | 0 comments
Other | Repurpose existing rail corridors to accommodate streetcar development (eg. Arbutus Corridor). | 2 likes | 0 comments
Other | I really like your visioning of streets ending in no-thru for car plazas. We need some entire areas dedicated to pedestrians with no cars. | 0 likes | 0 comments
Transit | Build more skytrains. Separate bus lanes along the busy roads. Support more transit passes for employees. | 1 like | 0 comments
Public Spaces | Support or create a service that helps people get into 'wilderness' without a car (or bike), there's lots of options for getting out of Vancouver. | 1 like | 0 comments
Cycling | Give cyclists two dedicated east west bike routes (10th Ave. and Adanac), with lanes for slower cyclists and faster cyclists and NO cars (except around VGH and for apartment dwellers who use their underground parking). | 1 like | 2 comments
Low Carbon | Promote the adoption of low carbon plug-in hybrids and battery electric vehicles by providing charging infrastructure. | 0 likes | 3 comments
D. City Response To Participant Priorities

City of Vancouver Transportation Department response to UBC Facebook Transportation Event

Exploring Vancouver’s Transportation Future

Over five hundred Vancouver area-residents participated in a June 2011 Facebook-based public discussion about the City of Vancouver’s Transportation Plan update. Learn about Exploring Vancouver’s Transportation Future at http://gcc.ubc.ca

The following nineteen recommendations (in bold) are the participant recommendations resulting from the Facebook discussion. This document is a City of Vancouver Transportation Department response to these recommendations. Public input from this and other public consultations held in spring 2011 will be integrated into a draft Transportation Plan by the City of Vancouver, which will then go back to the public for feedback in early 2012.

Recommendations of the Public Facebook Discussion (in bold) and City of Vancouver Transportation Department Response

1. Improve and expand bicycle routes and infrastructure.

The Transportation Plan update will set directions for cycling, including the city’s bicycle network and cycling infrastructure. The plan will include an updated bicycle network strategy, identify existing routes that need improvements, and identify infrastructure and facility types for various routes. The plan may include a framework for selecting bicycle facility types based on several factors.

2. Invest in the construction of more separated, and protected, bike lanes, which benefit drivers’ comfort and cyclists’ safety.

The current trial downtown separated bike facilities (Dunsmuir and Hornby), as well as the Dunsmuir Viaduct and Burrard Bridge lanes, provide a separated bike facility from Kitsilano through downtown, to Strathcona (or vice versa). As a trial, these facilities will continue to be monitored and evaluated in regards to bike volumes, traffic volumes, travel times, safety, usage demographics, and other factors. If these trial facilities are deemed successful, pending Council approval, a plan for an extended separated bike network, both downtown and outside of downtown, would be completed.

3. Develop an education campaign aimed at improving attitudes towards public transportation and to encourage cycling.

We have found that citizens tend to have a positive attitude towards public transportation. In fact we often hear that people just want more and improved transit service to make it an easier option. One of the difficulties with transit currently in Vancouver is that many routes are at or near capacity, especially in the Broadway Corridor.
The Transportation Plan will consider how to promote walking and cycling and how to educate citizens on the benefits and health and safety-related aspects of active transportation. Currently cycling promotion work tends to be done by groups such as Vancouver Area Cycling Coalition and BEST (Better Environmentally Sound Transportation), with Bike Month and Bike to Work Week events. The transportation plan update may recommend expanded and more direct City involvement in cycling promotion.


With the trial Dunsmuir separated bike lane the City produced a short film to highlight the features of the bike lane, to educate both cyclists and motorists. Additional awareness work could be done in this regard to highlight the cycling infrastructure throughout the city, including the network of local street bikeways. This will be explored through the transportation plan.

The City has developed a citywide bike map, available for free, which is generally updated on a yearly basis. This map indicates the routes by facility type, such as off-street, on-street separated, painted bike lane, or local street bikeway. The plan will consider opportunities for additional mapping options (e.g., web-based).

5. Install traffic signals (or at least stop signs for vehicle traffic) at locations with bikes (on bike routes!) have to cross busy streets.

Where bike routes cross streets with high traffic volumes the City has been installing cyclist (and pedestrian) activated traffic signals to stop traffic on the arterial, allowing cyclists to cross. The City continues to monitor locations where cyclist and pedestrian volumes are high and prioritises signal installations taking into account proximity to schools, parks and pedestrian and vehicle volumes.

6. Improve bicycle facilities to include secure bike and gear storage, and upgrades like roof systems over the new bicycle corrals, and change and shower facilities.

The need for secure bike parking, particularly in commercial areas and at transit stations, is a concern we continue to hear from citizens. The constrained space on our busy streets means creative solutions to bike parking have to be explored. One example is the on-street bike corral at Commercial Drive and 6th Ave, which took the place of an on-street car parking space. Such parking facilities and other approaches could be expanded to other commercial areas. We will continue to work with our partners, such as TransLink, to provide secure bike storage at transit stations. The Transportation Plan team will be exploring the option of a downtown bike centre, with parking, showers and change rooms. Initiatives such as covered bike parking areas will be examined in further detail in the Transportation Plan.

7. Invest in safety programs for everyone on the road.

The City with its partners, including ICBC and Vancouver Police Department, will develop an education campaign regarding road safety and appropriate behaviour by all road users this year. The 2011 Road Safety Awareness Program will focus on all road users in an effort to help people understand that the responsibility for safer streets depends on everyone practicing courtesy and awareness of their surroundings, and upon working together to share the road, regardless of the
mode of travel. The transportation plan will explore opportunities for expanding this program to be more ongoing in nature.

8. **Continue to focus on liveability and sustainability.**

Liveability and sustainability will remain a major focus of transportation and land use planning by the City. The recent adoption of the Greenest City Action Plan provides strong direction regarding sustainability, for both land use and transportation initiatives. The updated Transportation Plan will continue to reinforce the City’s transportation priorities of walking, cycling and transit.

9. **Develop mixed use neighbourhoods that have amenities within a 5-minute walk while still maintaining a community/residential feel.**

The development of compact, mixed-use communities, with jobs, shopping and other daily needs within walking distance, is a priority for the City. This has been done well in the downtown and Metro Core, so the challenge will be in the neighbourhoods throughout the rest of the city. Arterial streets will continue to play an important role as commercial hubs, so we will explore how to make these often busy, loud streets more pleasant shopping areas, while maintaining necessary transportation functions. Focusing higher density development in these areas and at other key nodes will help attract enough local population to support shops, services and amenities, while still maintaining a community feel. The Transportation Plan will not provide specific land use initiatives, but may provide high level directions to help inform a future citywide land use/structure plan.

10. **Build new high density developments with a mix of uses to support easy access to amenities and green travel options.**

High density, mixed use development has been instrumental in creating Vancouver’s vibrant, liveable and walkable downtown and city centre. For areas outside the downtown, such as Norquay Village Neighbourhood Centre, our goal is to create dense, mixed-use neighbourhoods allowing easy access to amenities by foot. The recently approved Cambie Corridor Plan will allow for increased density with low- and mid-rise residential development along Cambie Street, to take advantage of the Canada Line rapid transit line. The additional density will support additional retail and amenities along the corridor, making it a more walkable, transit-oriented community. The City will continue to use good land use planning to support sustainable transportation. The Transportation Plan will not provide specific land use initiatives, but may provide high level directions to help inform a future citywide land use/structure plan.

11. **Develop car free zones by closing specific streets.**

Directions were given in the Greenest City plan, as well as by Council, to examine car-free corridors in the city centre, such as Robson or Granville Streets. The City has recent experience with temporary car-free corridors, such as the pedestrian corridors for the 2010 Winter Games, and the VIVA Vancouver summer 2011 street closures. Developing permanent car-free corridors would require extensive consultation with impacted businesses and residents, as well as transportation stakeholders. Streets the feature transit or truck routes would be more challenging to close, as alternate routes would have to be found. Car-free corridors will be explored as part of the Transportation planning process.
12. Improve children’s transportation to and from school by creating car-free blocks, paths, or zones.

Transportation education and driving restriction enforcement can help in this regard. One idea used elsewhere is to have active transportation “halos” around schools where the priority would be on walking and cycling. This might involve a combination of traffic calming and enforcement, which would still allow local residents to drive to their home, but would discourage parents from driving their children to school. Training children to cycle safely from a young age, and encouraging “walk-buses” and Safe Routes to School type initiatives are some realistic and practical ways to get more kids walking and cycling to school. One challenge is cross-boundary students, who are often driven to school from one part of the city to another. Strategies to encourage walking and cycling to school will be explored in the Transportation Plan. The Vancouver School Board will be an important partner in these efforts.

13. Relieve the over-crowding of buses and trains during peak times.

While a certain amount of crowding is to be expected at peak times on a well designed, efficient transit system, extreme crowding and pass-ups are not desired. This is a concern we have heard numerous times during our public consultations. The main issue here is a lack of sustainable funding to provide additional capacity/service on the crowded routes. There are also technology limitations. For example, on the Broadway Corridor the buses are generally running at capacity, and it is not possible to run more buses. To solve the crowding problem, rapid transit is a promising solution to provide increased capacity. The UBC Line Study is examining rapid transit options for this corridor. The City will continue to work with TransLink to advocate for sustainable transit funding so that sufficient capacity can be provided on all routes. TransLink will be updating their long range plan starting in 2012 and we anticipate an update of Vancouver’s Area Transit Plan will follow in the near future. These two plans will provide an opportunity to advocate for new or upgraded services where overcrowding is an issue. The Transit Plan will identify our priorities for these advocacy and partnership efforts.

14. Ensure transit improvements keep pace with growth of use.

Vancouver faces a unique challenge: there is more demand for transit than available capacity on many routes. New transit routes are often near full when they open. Secure, sustainable funding is required to provide the mix of transit options -community shuttle, bus, streetcar, rapid bus, rapid transit- that Vancouver needs as it continues to grow. For example, there are long-term plans for bus rapid transit or light rail on Hastings Street and 41st Avenue. The City will work with TransLink on the update of its long-range regional transit plan and Area Transit Plan for the City of Vancouver to explore ways to improve transit capacity and reliability within the region.

15. Develop transit systems that minimize traveling time.

The City supports a transit system that provides a mix of transit options, including community shuttles, buses, rapid buses and rapid transit. Currently, the number one transit priority for the City is rapid transit along the Broadway Corridor. This would help improve transit reliability and reduce travel time between Commercial Drive and UBC. With the Transportation Plan update we will examine other improvements that can be made to reduce transit travel time, such as lane and signal priority for buses, where appropriate.
16. **Prioritize transit solutions for suburban commuters coming into Vancouver, especially rail.**

The City supports expansion of the regional rapid transit network, such as the Broadway Line, the Evergreen Line, rapid transit in Surrey as well as upgrades to the Expo Line. These rapid transit networks, in conjunction with the bus network, are vitally important to provide transit capacity and reliability for both Vancouver residents and commuters coming into the city. Many residents from other cities travel to Vancouver for work or leisure activities and it is important that there are sustainable travel options. The City will continue to advocate for a sustainable funding source to enable the completion of a rapid transit network in the region.

17. **Find ongoing sources of revenue for funding and expanding public transit, both for crowded Vancouver lines and commuter routes.**

As noted above, sustainable and sufficient funding of transit, for both project capital costs and ongoing operational costs, is a significant regional challenge. The City will continue to advocate for funding solutions that address the need for ongoing revenue sources and explore with TransLink various methods for ongoing funding, particularly sources that encourage a shift to walk, bike, and transit.

18. **Widen sidewalks and remove pedestrian obstacles such as ill-placed benches. Revisit bylaws to create hanging signs instead of sandwich boards that pedestrians have to dodge.**

The Transportation Plan update will examine improvements to the sidewalks and public realm, and provide directions and strategies to make streets more vibrant, comfortable, and enjoyable public spaces. It will also examine ways to balance the needs of multiple transportation functions for a variety of age groups and mobility needs. For example, seniors often make use of benches at transit stops but these can also be a barrier to pedestrians in areas with constrained sidewalks. In the long term, sidewalks can be widened through redevelopment of adjacent properties but this does not help with short-term needs. More consistent street furniture and formal streetscape design guidelines will be explored through the City’s transportation planning process.

19. **Channel a greater proportion of public funds into developing walking, cycling and transit infrastructure.**

The City has recently reorganized its Transportation Division to better align with the City’s transportation priorities and functions. Along with this, a greater examination of funding allocation by mode is being conducted to ensure funding levels more appropriately match the City’s transportation priorities. Also a priority through the next capital plan will be to collect data about usage before and after changes to measure the success of projects for attracting more walking, cycling and transit trips.