

For appropriate page numbers please see published paper:
Levenda, A. M., Keough, N., Rock, M., & Miller, B. (2020). *Rethinking public participation in the smart city. The Canadian Geographer / Le Géographe Canadien*. doi:10.1111/cag.12601

Rethinking Public Participation in the Smart City

SHORT TITLE: Rethinking Public Participation

Anthony M. Levenda

Department of Geography and Environmental Sustainability, University of Oklahoma

Noel Keough

School of Architecture, Planning, and Landscape, University of Calgary

Melanie Rock

Cumming School of Medicine, University of Calgary

Byron Miller

Department of Geography, University of Calgary

Correspondence to/Adresse de correspondance: Anthony M Levenda, Department of Geography and Environmental Sustainability, 100 E Boyd St., Norman, OK, USA, 73019. Email/courriel: anthonylevenda@ou.edu

In efforts to become “smart cities,” local governments are adopting various technologies that promise opportunities for increasing participation by expanding access to public comment and deliberation. Scholars and practitioners encounter the problem, however, of *defining publics* -- demarcating who might participate through technology-enhanced public engagement. We explore two case studies in the City of Calgary that employ technologies to enhance public engagement. We analyze the cases considering both the definition of publics and the level of citizen participation in areas of participatory budgeting and secondary suites. Our findings suggest that engaging the public is not a straightforward process, and that technology-enhanced public engagement can often reduce participation towards tokenism. City councilors and planners need to critically confront claims that smart cities necessarily enhance participation. Moving beyond tokenism requires understanding “public” as a plural category. Municipal governments should seek to proactively engage citizens and communities utilizing helpful resources, including but not limited to digital tools and smart technologies. This would allow planners to keep a “finger on the pulse” of publics’ concerns, better identifying and addressing issues of equity and social justice. It is also important to consider how marginalized publics can best be recognized in order to bring their concerns to the fore in decision-making processes.

Keywords: smart cities, publics, citizen participation, Calgary

Key Messages:

- Smart cities technologies do not necessarily increase the level of citizen engagement.

- The idea of a public is a plural, emergent phenomenon that requires careful consideration by planners to enhance equity and participation.
- Critical perspectives should consider the way publics are formed in relation to smart city technologies.

Introduction

As smart cities projects and policies expand across the globe, urban government agencies and planning offices have adopted smart city technologies in a variety of domains (e.g. urban dashboards, smart grids, control rooms, automated ticketing, smart lighting, etc.). Accompanying the adoption of technologies is a number of urban initiatives that incorporate services delivered by technology companies, sometimes in conjunction with university research centers or new government agencies (e.g. office of innovation). These technologies and initiatives are often cast as opportunities to increase the efficiency of urban service delivery (e.g. waste disposal, transportation, energy provision, permitting processes, etc.) while saving public monies, boosting economic development, and decreasing environmental impacts. Across nearly all initiatives, a central discourse in smart cities scholarship and marketing is the ability of these technologies and programs to enhance public participation in urban planning and decision-making.

Scholarship on technology-enhanced public engagement describes technologies (such as participatory geospatial information systems, smartphones, computer games, 3D models, or comment forums) as a boon for increasing civic participation and engagement (Conroy and Evans-Cowley 2006; Hanzl 2007; Howard T. L. J. and Gaborit N. 2007). Scholarship on “e-government” evaluated the role of digital information and communication technologies (ICTs) in altering how urban governments conduct their work and engage with communities (Moon 2002; Madon et al. 2007; Deakin et al. 2011). Ideas for “crowdsourcing” participation processes promised to increase participation in planning projects and spur innovation (Brabham 2009; Seltzer and Mahmoudi 2013). In this article, we utilize the term “smart city” to group together the latest trends in technology-enhanced and internet-based public participation and engagement programs used in urban planning (Foth et al. 2011; Townsend 2013; Foth et al. 2016).

While the growth in public use of ICTs and the rise of smart cities has promised increased and more meaningful forms of participation, there has been a persistent critique of the interests of corporations providing smart city services and technologies. At the center of these critiques, scholars suggest that allegiance to corporate interests undermine the potential of democratic participation through narrowing citizen input in urban decision-making (Greenfield, 2013; Shelton & Lodato, 2019; Vanolo, 2013, 2016). These critiques also implicitly consider how smart cities policies and programs impact the *process* of participation and its possible *outcomes*. This suggests citizen participation *upstream* of the creation of internet-based or smart-city-enabled participation tools may enhance the democratic potential of smart city programs, ensuring participation before certain planning pathways are taken and points for democratic citizen participation become limited.

The central question of democratic governance and citizenship has been at the heart of debates on citizen participation in scholarship and practice. At least since the publication of Arnstein’s (1969) seminal work, citizen participation has been revered as a central process for democratic decision-making and at the same time criticized as tokenism that merely placates the public. As smart city programs take on a more “citizen-centric” approach, questions about the role of citizen participation and the viability of the dominant critiques require further

consideration (Kitchin 2015). Furthermore, analyses need to consider which broad and diverse publics actually engage in these programs.

Utilizing an embedded case study approach, we analyze two case-studies of digitally-mediated participation in planning processes mandated by The City of Calgary (Canada) in the realms of participatory budgeting and rental housing. These case-studies illustrate competing conceptualizations of “the public” in relation to who is garnered to act and participate through the City’s online platform and those who might contribute in more meaningful ways through in-person consultations, workshops, and direct testimony to the City Council. We argue for a reconsideration of the concept of “publics” in public participation for smart city projects. Drawing from recent advancements on the American pragmatism of John Dewey (1946), we consider the ways in which digital ICTs (as part of smart cities) are transforming participation in decision-making by *creating* new publics. We build on Arnstein’s ladder to highlight how digital technologies are embedded in broader processes of governance creating tensions along the continuum of citizen power and empowerment, tokenism, and nonparticipation. We do this by focusing on the question of *publics* as a dynamic category that frames and structures participation.

Conceptual Framework

Arnstein’s (1969) influential typology of participation has been integral to planning scholarship and practice because of its utility in directing practice, framing empirical data, and shaping policy. The ladder of participation was originally formulated in the context of poverty reduction programs, and the normative perspective was centered in the redistribution of power. In subsequent critiques of Arnstein’s work, scholars have presented modifications and new frameworks, perhaps most prominently is Davidson’s (1998) wheel of participation. Davidson’s approach builds on Arnstein’s work to focus on the differential realms of participation made available to publics or sections of the population but argues that a hierarchical model limits our focus on techniques instead of also thinking about objectives of participation and suitable methods of engagement in the realms of informing, consulting, participating, and empowering.

Planning scholars and practitioners conceive of “the public” in various ways (Friedmann 1987). Typically, the idea of “the public” is associated with a group of citizens who are the subjects of engagement processes by industry or government (i.e. the state) (Cotton and Devine-Wright 2012; Purcell 2016). While mainstream approaches recognize the existence of heterogeneous groups that make up a public, the term “the public” is often used as an empty signifier to persuade citizens that decisions are made in accordance to democratic procedures of consultation and participation. Critical scholars question who assembles and defines heterogeneous publics, and how these definitions come to be accepted (Barnes et al. 2003; Hum 2010; Ruming et al. 2012; Watson 2013). Recent work on publics in relation to smart cities has suggested there is a privileging of entrepreneurial and service user modes of characterizing and engaging publics in smart city programs and initiatives (Cowley et al. 2018).

Yet, these approaches do little to consider how the development of smart engagement programs “call a public into being” (Dewey 1946; Marres 2005), or in other words, how smart engagement programs and technologies themselves shape the contours of citizen participation, define what citizenship means, and delimit who is involved in a particular issue. This insight builds from the pragmatist tradition of John Dewey and recent interpretations by Noortje Marres (2005, 2007). Dewey’s *The Public and Its Problems* (1946 [1927]) argues from a pragmatist approach that complex *issue formation* is what makes democratic public involvement in politics

possible. Dewey (1946, p.15-16) defines publics as simultaneously produced with issues they face, especially when a problem is not addressed by those directly involved, inciting public involvement in politics: “The public consists of all those who are affected by the indirect consequences of transactions, to such an extent that it is deemed necessary to have those consequences systematically cared for. [...] Since those who are indirectly affected are not direct participants in the transaction in question, it is necessary that certain persons be set apart to represent them, and see to it that their interests are conserved and protected.” And he expands (1946, p.27): “[T]he essence of the consequences which call a public into being is the fact that they expand beyond those directly engaged in producing them.”

Dewey’s ideas on democracy and public formation have been instrumental in recent geographical scholarship on the practice of direct democracy (Barnett and Bridge 2013; Harney et al. 2016; Hankins 2017; Lake 2017a; Lake 2017b; Lake 2017c; Purcell 2017). Recent debates have suggested a divide between Dewey’s positive view of “creative democracy” and more “paranoid” view of contemporary critiques (Lake 2017b). Yet, considerable overlaps exist in theories from Lefebvre, Ranciere, Foucault, and others in the ideas of democracy as a continual process, spreading across all spheres of life, rooted in a critique of liberal individualism, focused on all citizens, and fundamentally about agonism, disagreement, and debate (Purcell 2017). These debates are instructive for our analysis of participation and public formation in the smart city as we question to what degree smart technologies enable a more democratic participation.

All of this suggests that procedural approaches typical of urban civic participation do not on their own produce democratic outcomes, and that considerable attention should be placed on how issues are articulated and contested by publics drawn to participate in planning projects. Marres (2005; 2007) expands on Dewey and other pragmatists to argue that publics are not just awaiting participation processes to strike them into action, but instead that the formation of issues of public concern and publics themselves are shaped together. This approach reworks how we understand democratic participation, moving away from the idea that engagement is a challenge to be overcome with events to gather public comment or that democracy is a problem to be solved. Instead, it asks planners and city officials to consider the dynamic and emergent aspects of public participation not captured in traditional forms of participation activities. This notion of participation does not preclude insights from Arnstein’s ladder of participation, but it does ask planners to reconsider how the spaces and techniques of engagement might (de)limit a democratic politics, one that might fall into the trap of tokenism Arnstein (1969, 219) associated with consultation: “What citizens achieve in all this activity is that they have ‘participated in participation.’ And what powerholders achieve is the evidence that they have gone through the required motions of involving ‘those people.’” Centrally, our approach asks “who defines publics” as heuristic for understanding this theoretical concern.

In bringing together the pragmatist tradition with Arnstein’s ladder of participation (which structures participation from the low rungs of token engagement to the top rungs of direct democracy and autonomy), our conceptual framework adds another dimension to the ladder, one that recognizes Dewey’s observation that a liberal democratic politics should consider publics as a dynamic concept (Figure 1). We arrange the citizen participation axis (vertical) from top-down to bottom-up to approximate Arnstein’s ladder (going from non-participation up the rungs to citizen control), and the “who defines publics” axis (horizontal) from pre-determined publics to emergent publics to roughly represent Dewey’s concern with democratic nature of public participation. Notably, we use the notion of “consumerism” following on Cardullo and Kitchin’s (2018) “scaffold of citizen participation” to capture a dominant form of (non-)participation that

has grown since Arnstein's ladder was conceptualized. We also might consider "protests" as a form of participation and example of emergent publics in the sense Dewey described.

[Figure 1 about here]

Smart cities technologies complicate this dilemma of increasing tokenism through the proliferation of online platforms for engagement that facilitate public comment, not paired to other forms of meaningful participation. As Cardullo and Kitchin (2018) propose, most opportunities for engagement are relegated to consumerism or tokenism, where citizens play the role of a consumer or recipient or tester. These limited approaches are still accompanied by discourses of civic engagement or participation that make participation seem democratic. Yet, as Arnstein's typology explains, these top-down approaches focus on delivering pre-defined outcomes with limited room for change.

As studies of engagement, participation, and citizenship in smart cities progresses (Gabrys 2014; Sadoway and Shekhar 2014; Vanolo 2016; Joss et al. 2017; McFarlane and Söderström 2017), there is a continued emphasis on the need for more upstream engagement and consideration of citizens' perspectives and power. Here, a "right to the city" frame – a term coined by Lefebvre (1996) to call citizens into action to reclaim urban space against capitalist tendencies to commodify and privatize – offers insights for shaping both democratic participation and a reworking of how smart technologies might be shaped and used for more democratic outcomes (Foth et al. 2016). Smart public participation technologies are only one way organizing publics (e.g., participatory budgeting, at least initially) but traditional means (e.g., town halls, consultation of community associations) also assemble publics. If traditional, in-person approaches are conducted first, they can overwhelm other subsequent (smart) approaches through the participation of pre-existing and organized publics. Thus, planners, and the city councils to which they answer, should also consider how digital (i.e. smart) methods of participation shape public and citizen involvement, or the simultaneous formation of publics and issues of public concern. The recent engagements with Dewey's work we reviewed call for understanding the way publics are called into being by infrastructures (Collier et al. 2016), leading to a more refined research question: How have internet-based and smart-city-enabled participation tools shaped issues of public concern and the formation of publics in Calgary?

We address our research question through an analysis of the City of Calgary's participation processes in participatory budgeting and secondary suites (rental units within single family homes). We utilize insights from Arnstein's ladder of citizen participation coupled with the pragmatist concern for the co-emergence of publics and issues of public concern as elucidated in our conceptual approach. In each of the cases, we pay particular attention to (1) how participation processes are shaped by online engagement platforms or other smart city technologies or not, (2) how communities have been brought into the engagement process and how they have interacted in each case, and (3) how these forms of engagement shaped the outcomes of each project. Special attention is placed on the issues of public concern themselves, highlighting how they drew segments of Calgary (and beyond) into a political discussion.

Research Approach

We use an embedded case study of the City of Calgary's Engage program, focusing on citizen engagement processes in participatory budgeting and secondary suites in housing. Our analysis moves beyond the "world of the observer" into the participant through our (the authors') long-term participation in city planning processes, as "citizen practitioners." As long-term residents and active participants in planning processes related to these two projects, data was collected

through participant-observation and was analyzed through narrative and qualitative content analysis to understand how each program unfolded as a subset of the larger Engage program in Calgary (Schreier 2012). By constructing the descriptive case study, we bring to fore theoretical concerns with empirical data.

Additionally, we analyzed public discourse through continual engagement with documents published by the City of Calgary, the local media, and consultant organizations (Steady et al. 2016). Overall, we analyzed over 40 documents published between 1990 and 2018. We use critical discourse analysis to understand how different groups (government officials, community groups, etc.) in a city construct narratives of urban development, and to help elucidate the relations of power that configure particular dominance of a narrative and its impacts on urban policy and decision-making (Hastings 1999; Lees 2004; Jacobs 2006). This corresponds with the “communicative turn” in planning which emphasizes the importance of public discourse in shaping planning goals, processes, and outcomes (Innes 1998; Huxley 2000). Discourse analysis focused on our theoretical concerns with publics (how they are defined, who is included, when do they get recognized as described by Marres) and participation (relating to types of participation as described by Arnstein). We did this to enable deeper contextualization and understanding of the extent to which internet-based tools shape participation and the formation of publics or do not. Our analysis also builds on extensive prior research on rental housing and urban planning practice in Calgary that all four authors have been involved with in various capacities. Finally, we supplemented our participant-observation and document analysis with two interviews with senior public officials involved with the Engage program.

To visualize the theoretical connections in our case study, levels of participation and who determines a public, we “map” significant events related to our units of analysis onto our conceptual framework (Figure 2). This form of interpretation helps planners and researchers understand how participation processes fit into the larger landscape of democratic political participation, and how public concern can influence urban policy through more meaningful participation (i.e., higher on Arnstein’s ladder).

Overview of Calgary’s “Smart” Engagement strategy: Shaping new publics?

The City of Calgary adopted the Engage Policy in the Spring of 2013. It directed the City to develop engagement processes that would achieve “alignment with City Council’s priorities for citizen-centric service delivery; support for City Council’s decision making by providing information about stakeholders’ opinions and perspectives; consistent and clear engagement practices; and enhancement of The City of Calgary’s reputation as an organization that listens to citizens and stakeholders.” Engage demonstrated a normative commitment to engagement and its influence on decision-making. The City’s strategy resembles Arnstein’s ladder focusing on four strategies and associated promises for reaching, involving, and engaging citizens. This includes: Listen & Learn, Consult, Collaborate & Empower.

Calgary’s Engage platform is also an online portal for citizen participation that builds on the principles of the Engage Policy and Framework. Online participation through Engage has increased the number of comments on any project, “yielding upwards of 50,000 pieces of information” compared to a typical event that has around 200 attendees who are consulted. As one City representative involved with Engage described this:

We get a lot more differing opinions online [...] You get people who come in person who are very motivated and concerned about a particular issue, whereas, you can get a lot better information, to and from a great variety of people online [...] You get very

passionate people. You get people who just want their opinion heard. But we do get more people online who otherwise we wouldn't talk to, because they aren't motivated enough or passionate enough to come out to an event. But we still want to hear from them because they may have very valid ideas, but they're just more passive about the issues than someone else (Interview, October 2018).

In general, Engage, as a platform for online citizen participation, has increased public comment on a variety of topics, including the budgeting and secondary suites policies we investigate further below. As one City representative describes it, much of the input comes from citizens who might not otherwise be able to participate in traditional engagement events, or just aren't as passionate about the issues. In the context of our conceptual framework, the platform provides the infrastructure for publics and issues to emerge simultaneously, in much the same ways Dewey considered the infrastructures of trains and radio to do the same in his time. Dewey (1946), referring to these technologies, explained that “steam and electricity have done more to alter the conditions under which men associate together than all agencies which affected human relationships before our time” (p.141) and thus, “we have the physical tools of communication as never before” (p.142). Yet the quality of these associations had changed drastically. As Dewey explains, “the machine age has so enormously expanded, multiplied, intensified and complicated the scope of the indirect consequences, has formed such immense and consolidated unions of action, on an impersonal rather than a community basis, that the resultant public cannot identify and distinguish itself” (p.126).

Thus, while increasing comments on a project may seem to be an obvious improvement in democratically shaping urban policy and planning projects, it is only one form of engagement that can easily slip into what Arnstein described as tokenism, informing decisions largely outside the control of citizens. Typically, “engagement is used as one input in decision-making [among many including technical aspects, budgetary concerns, direct testimony, and other considerations]” (Interview, October 2018). This is no indictment of Engage. It simply illustrates a central tension in public engagement facilitated by the City that public engagement always includes negotiation with a variety of other forms of information in the City's formal decision-making activities. Participation is much broader than formal engagement activities, however, and as such, our analysis follows Arnstein's ladder and the pragmatist tradition to look more broadly at participation, publics, and democratic politics.

Participatory Budgeting and Smart Engagement

In a discussion at the International Cities Summit in Vancouver, BC, Calgary's Mayor Naheed Nenshi discussed the completion of Calgary's participatory budgeting process a few months earlier: “We used to do things like open houses and town halls when we had those discussions. And what we learned this time around is that the open houses and the town halls are the most expensive and least successful part of the process” (Cities Summit Vancouver February 1, 2012). As a part of that discussion on “*Open Cities: The New Imperative*,” Nenshi was joined by the General Manager of Global Smart Cities for IBM to talk about advancements in smart citizen participation. The participatory budgeting initiative – “Our City. Our Budget. Our Future.” – was launched in 2011 shortly after Nenshi was elected and reflected his “goal to invite Calgarians in as problem solvers in our process” (Lynn, 2011a). In a three-phase engagement strategy, each lasting about three months, Calgarians (1) were asked about appropriate and effective elements and methods for participation and a successful engagement process; (2)

expressed their values and priorities for city services; and (3) explored how they would manage city finances via an online budget tool and smartphone app.

While the first phase focused on informing and consultation, the second phase of the engagement process, according to the planning lead, would “provide opportunities for participants to have a say on the services they value most as well as those services where improvements might be considered” (Lynn, 2011b). In contrast, Calgary’s City Manager alluded to the limitations of the engagement process suggesting that “open dialogue such as this public engagement will sew the fabric for a stronger community for Calgarians and ensure their thoughts are being *considered* when Council makes decisions about The City’s future” (Lynn, 2011b). Echoing the Engage representative, Calgary’s City Manager stressed that Council ultimately decides based on a variety of factors, and citizen input is only one form of information used in the process, a token form of engagement according to Arnstein’s ladder.

During the third phase, the City performed a “smart” budget simulation exercise. Citizens were able to interact with the budget using a smartphone app to explore budget-making options and submit them online to the project team. This represented an opportunity for direct input into budget setting priorities, bringing new publics into the picture that might have been disconnected before due to an inability to meet in person (Calgarians who have conflicting working hours, mobility issues, or who lack childcare, for example). Through the entire process the City of Calgary experimented with numerous models of engagement including the budget kit, videos, local roundtable sessions, community forums hosted by city officials, online commentary via Facebook, Twitter and the city’s blog. The smartphone app was a central process for soliciting participation and was designed to provide information about the budget process and to facilitate discussion in a digital arena. It allowed citizen-users to complete surveys and questionnaires, rate city services as well as propose priorities for budget spending, yet the chance for public dialogue and exchange was limited to in-person engagements.

When the results of the participatory budgeting process were released in 2011 in a report to Council prepared by a consultant group, it showed the City had consulted with more than 23,000 Calgarians who prioritized efficient service provision and opposed service reductions. Residents also indicated the value of performance measurement, communication, long-term planning, fiscal restraint, and building inclusive partnerships between government and communities (Williams, 2012). The consultant team followed the Engage Framework, described above, and said that “the ‘Inform’ level of the spectrum was implemented throughout the entire process, with ‘Listen & Learn’ and ‘Consult’ being commitments to participant’s levels of influence related to final decision-making. [...] Participants regularly requested that once decisions are made, all participants be informed about what input was used in decision-making, what input was not used, and the reasons behind these decisions” (Dialogue Partners, 2011, p. 29).

While the participatory budgeting process received widespread accolades for its innovative approach (including an award from the Canadian Association of Municipal Administrators), much of the perceived successes seemed out of proportion to the actual benefits. The 2011 budget process broke new ground in citizen engagement with extensive face-to-face and digital engagement including the introduction of the budget app. In 2015, a second citizen engagement project used the more modest, but creative, Take Action Bus -- an engagement event that took place on a public bus that circulated the city to reach citizens and get them to engaged in activities like “dotmocracy” in which they placed dots on issues of concern and where a more sophisticated budget simulator was employed. A third engagement event began in 2018, did not

use any participatory budget simulation tools, and instead relied on normal avenues for public comment.

The trend across the three engagement processes from 2011 to 2018 was a retreat from “smart” tools and a reduction in citizen involvement. This, we suggest, is due to the fact that broad public engagement was merely a “checkbox” strategy to assuage citizens that their voices were heard, when in fact these were more tokenistic forms of participation that avoided meaningful upstream dialogue. As the project has progressed, therefore, little effort has been made to build citizen power in setting the budget, and rather tokenist approaches are celebrated as innovative because they included varying degrees of smart technologies, or provided the illusion of assembling a broad public and including their collective voice. Though it would be unfair to conclude that the budget process was unsuccessful or not ambitious on its own terms – opening a dialogue on budget priorities, educating citizens on budget processes and aligning budget decisions with citizen priorities - the process has not moved the bar toward citizens controlling allocation decisions on significant portions of city budget. As Flynn (2016) noted, the process in Calgary that began in 2011 as a self-styled participatory budgeting process cannot really be considered to be “participatory” in the sense of Porto Alegre’s (Brazil) process where annually almost 30,000 citizens allocate 200 million dollars of the municipal budget (Dialogue Partners, 2011).

Who are the publics in this budget process? And do the smart technologies play a role in shaping them? Statistics on who participated demonstrated that the process to a large extent replicated a familiar pattern in Calgary sometimes known as the Deerfoot Divide. The Deerfoot Trail is a major freeway running north to south through Calgary separating the less affluent and higher immigrant population in the east from the affluent and more homogenous west of the city. Citizens west of the Deerfoot Divide participated at more than twice the rate of those on east of the divide (Dialogue Partners, 2011). While this gives us a general sense of the relative levels of participation across income and racial divides, there is no demographic data attached to public comment. However, it is important to note that participatory processes were catered towards particular publics, instead of being used as a tool of empowerment for emergent publics.

In addition, as the engagement processes altered in 2015 and 2018, there were fewer opportunities to interact via digital tools, and no such effort in budget simulation in 2018. In 2018, Calgary opted for a process that explicitly favored the business community. Citizens were engaged on budget priorities, but citizens who qualified as business people were given a second opportunity to express their particular concerns. Here, a concern for private economic and political power is not acknowledged. Also, it is not clear if digital technologies like the Budget Simulator aided in advancing more meaningful participation (towards citizen power). Adam Greenfield (2013) writes that in smart cities you only exist if you are ‘connected’. The act of citizenship, of being part of a public in Dewey’s sense, is contingent upon having access to and experience using digital tools. Here smart technologies might tend to reinforce inequalities, privileging the views of some over others. However, these forms of participation tend towards a transactive approach that undercuts deliberation and the pervasiveness of disagreement, allowing cities to simply boost the numbers, mark the check-box of public involvement and move on.

Secondary Suites Spark a Public into Being

Secondary suites, dwelling units nested within traditional residential properties (Harris 2017), have become a major political issue in Calgary and beyond. In cities across Canada, ‘secondary suites’ likely account for one in four rental units (Harris and Kinsella 2017). Precise statistics,

however, are unavailable due to the informal and often illegal status of secondary suites. For instance, the Canadian Housing and Mortgage Corporation has never sought to enumerate secondary suites, which take many forms (Harris 2017; Kinsella 2017). In Canada, secondary suites typically contain bathrooms and cooking facilities. These dwellings usually can be locked off from the main premises, and sometimes they have separate entrances and also include the newer form of laneway housing – a detached secondary suite usually in the backyard and opening onto the back lane or alleyway. Given the predominance of ‘single-family’ homes in suburbs that were built in the decades following WWII, secondary suites are often located in Canadians’ basements, and occasionally within garages (Kinsella 2017; Suttor 2017).

In Calgary, secondary suites are crucial to the local housing market. First and foremost, they augment rental stock in apartment buildings and condominiums. Given that lower-income Calgarians may not be able to afford standard apartment rentals (Hulchanski 1995), these residents may be obliged to rent a secondary suite. Lower-income tenants with children may opt to rent a secondary suite to gain access to schools and other amenities, such as a backyard or neighborhood parks. Given that single motherhood tends to correlate with lower incomes, Calgary’s rental market in secondary suites plausibly has gendered dimensions that have yet to be investigated in any detail. Second, secondary suites can provide a crucial source of revenue to small-scale landlords, including homeowners who reside on the premises. Older adults, for example, may rent out part of their homes and thereby benefit economically as well as socially (Goodbrand et al. 2017). Older adults with fixed or low incomes, meanwhile, are also candidates for tenancy in secondary suites. Whereas resident homeowners usually live in the main floors of houses containing a secondary suite (or suites), financial pressures may lead homeowners to take up residence in their basements (Tanasescu et al. 2010), ceding the more desirable and marketable parts of their property to tenants. Third, secondary suites may serve as temporary or permanent accommodation for family members. In a review of 294 applications to The City of Calgary to create a legal suite within an existing home, about one-quarter of the applicants cited family reasons in their justification (Goodbrand et al. 2017).

Secondary suites have become a significant source of housing for newcomers to Calgary, as well as a revenue source for newcomers, especially as they become established and qualify for mortgages as homeowners. For a variety of reasons, newcomers disproportionately settle in suburban developments located in the northeast quadrant of the city, and newcomers appear to be over-represented as tenants in secondary suites that are structurally unsound (Goodbrand et al., 2017; Tanasescu & Smart, 2010; van der Poorten & Miller, 2017). Moreover, newcomers may become interdependent with one another through secondary suites in ways that, ideally, are mutually beneficial yet that can also become a source of stress within extended families.

Secondary suites had been a rather unremarkable element of Calgary’s housing market and urban landscape for decades, until the 2006/7 housing shortage and bubble placed renewed emphasis on these rental units. In 2009, a fatal house fire brought further attention to the issue. This fire highlighted physical risks, but also brought to fore risks associated with mental health: depressive symptoms, associated with a lack of natural light in basement dwellings, and broader concerns about feeling like ‘second-class’ citizens as a result of being consigned to living in stigmatized circumstances, and with little or no protection through official channels (Tanasescu et al. 2010; Graham et al. 2018). To be sure, numerous attempts had been made to formalize and regulate secondary suites in Calgary in the 1990s and 2000s, but in vain mainly because “a vocal minority of residents and [neighborhood-based] community associations...inhibited secondary suite proponents from easing barriers to legalization” (van der Poorten and Miller 2017, 564)

The 2009 house-fire was instrumental to the revival of secondary suites as a public concern in Calgary. Internet-enabled participation tools and Calgary's Engage program were crucial for rendering secondary suites as an issue in need of redress, creating new forms of associations between citizens assembled as publics to fight against or for secondary suites (c.f. Marres & Lezaun, 2011). In 2009, following on from a Council directive issued in 2007, the City commissioned a private research company to conduct an online survey of Calgarians' which showed broad support for the creation and legalization of secondary suites (van der Poorten 2018, 107). City staff also engaged directly with the elected boards of neighborhood-based community associations, whose views ranged from hostility to wholehearted support (van der Poorten and Miller 2017). In 2011, Council voted down a proposal to permit secondary suites in neighborhoods that were zoned for single-detached housing (previously known as 'single-family' homes). Of note, those opposed all represented suburban constituents.

In the fall of 2013, Mayor Nenshi, who expended significant political capital in support of secondary suites in his first term, won a second mandate. That spring, a devastating flood severely damaged housing in many inner-city neighborhoods, including affluent and gentrifying areas. Thousands of basements were flooded, including secondary suites, which put further pressure on the rental market. Then in September 2014, with the support of inner-city members of City Council, the mayor directed administration to prepare amendments that would permit secondary suites near light-rail transit (LRT) stations as well as in low-density areas within select wards. City staff organized a series of open-house consultations in areas of the city that would be most affected. Meanwhile, a pro-secondary suites coalition formed amongst post-secondary students and poverty-reduction advocates. Previously, secondary suite legalization had visible and active opponents, notably through neighborhood-based community associations, but not organized proponents. Indeed, some community associations voiced their opposition to the proposed changes, while others endorsed the reform, a sign of emergent publics formed around the contested issue of secondary suites, who organized without the use of the City's smart engagement tools, but rather more traditional means of community meetings albeit advertised via social media.

The City still maintains a website under the banner, 'Secondary suites: Apply or legalize a suite, suite benefits, tenant safety tips, and suite registry.'¹ The website shows how the issue is still not resolved, and notifies visitors that the administration is currently working on standards to permit 'backyard suites' throughout the city, which Council expects to review in 2019. Prospective landlords can link to an application form to create a new suite or to declare an existing suite. Prospective tenants, meanwhile, can link to a scalable map that shows the precise locations of secondary suites that have passed inspection. Underneath the main video 'playlist' link, the City addresses prospective tenants directly: 'Safety measures that could save your life.' The accompanying text specifically mentions house-fires as an emergency situation that occupants of secondary suites should consider. More specifically, the City advises prospective tenants to check for operable windows in bedrooms, smoke alarms, carbon monoxide detectors, and exits to the outdoors.

Mayor Nenshi won a third mandate in 2017, and soon Council returned to the issue of secondary suites. In March 2018, Council approved amendments to allow secondary suites in areas that had been zoned for 'single-detached' housing. That said, neighbors could still appeal applications to create secondary suites, at a quasi-judicial body known as the Subdivision and Development Appeal Board (SDAB). Throughout the secondary suites debate, however, internet-based tools were not extensively used for public engagement. The reason for this is that

publics were already assembled and organized around the critical political issue of affordable housing. This affirms our hypothesis that technology-enhanced or smart-city-enabled participation tools serve to fill the void where public engagement does not naturally arise regarding issues of public concern and reinforces the idea that downstream avenues of engagement are necessarily tokenistic, regardless of the use smart technologies.

Discussion

Utilizing the conceptual framework, we mapped events in each case along the axes of citizen participation and democratic publics. Notably, Figure 2 shows that City-led participation processes often cater to predetermined publics to solicit information and comment in ways that fit mostly on the lower rungs of the ladder. This is indicated by the clustering of significant events and processes in the lower-left hand quadrant including city-led engagement for participatory budgeting and secondary suites policy discussions. Events such as the political incitement after the house-fire of 2009 brought publics into being in the sense that Dewey imagined. The democratic nature of these emergent publics seemed to fade over time. Safety in secondary-suites remained relevant but were overshadowed by broad-based public concern with the larger political-economic problems of housing affordability.

[Figure 2 about here]

In general, our cases show that publics are defined and assembled through issue-specific projects. We have three key findings. First, we find that critical stages in planning processes often lie outside the prescribed scope of citizen participation, as defined by Arnstein. The capacity to define planning problems, including circumscription of the geographical territory of concern and the range of permissible courses of action, typically operate prior, during, and/or subsequent to participatory practices as conceived by Arnstein. This is in spite of the promises of digital ICTs and smart city strategies for greater citizen participation. In this regard, traditional forms of power politics and expert decision-making continue to exert substantial influence over planning processes and decision-making, despite the incorporation of new forms of digital participation like Calgary's Engage portal or the participatory budgeting smartphone app.

Second, we show that engagement processes that utilize digital technologies and platforms can call "publics into being." Defining *who* is encapsulated in the definition of a public depends on a broader system of infrastructure, digital technology, and the knowledge, skills, and access necessary to adequately participate. Publics are not easily delineated. Our case studies elucidate how "issues of public concern" and internet-enabled participation tools can be key to the formation of publics.

Third, we find that citizenship is a contested process and outcome in which digital ICTs often fall short of their utopian potential. While information has become more ubiquitous, the priority of citizen control and power is still often undermined by power structures (e.g., corporate and developer interests, wealthy communities, administrative directives to planning staff, etc.) that limit participation to tokenism. Here participation is often a way of signifying a sense of inclusion without addressing actual citizen concerns.

Conclusion

In this paper, we have discussed how smart engagement strategies were utilized to include citizens in important budget-setting and housing debates in Calgary. While smart technologies promise greater inclusion of citizens, the cases show that the general tendency was for smart technologies to be used only superficially, while traditional face-to-face public meetings were

more significant in the decision-making processes. This suggests that particular publics were privileged (including those who can make it to meetings or who have business connections to debates). The retreat from using smart technologies in participation also suggests that the design of participation programs take place in the larger power-laden context of the city, where city officials can control what publics they want to call forward.

Our analysis thus suggests two primary insights for planning and governance practice that can help re-center citizen power in participatory processes. First, following Dewey and Marres, we find that an issue can spark a public into being, but the converse is also true: recognizing a public can bring an issue into being. This follows more established approaches in planning scholarship and practice such as advocacy planning (Davidoff 1965) and equity planning (Krumholz 1982; Krumholz 2011). Yet, more work related to the role of the politics of recognition (Young 1997; Fraser 1998; Coulthard 2007) would shed light on how the liberal democratic approach of Dewey might benefit from conversation with political approaches more in line with Arnstein's view of citizen power and even more radical traditions. As Koopman (2013, 86) notes: "being able to hold some line, however tenuous and imperfect, between a politics that proceeds by deliberation and collaboration on the one hand and a politics that proceeds by compulsion on the other, is a necessary condition for democracy itself." Second, more work should focus on how urban infrastructures connect communities and create publics (Collier et al. 2016). This would provide fruitful grounds for exploring public concern across political and social difference.

Overall, our findings suggest that internet-enabled participation tools are not only important as a means of providing new avenues of access to participatory processes, they also serve to define and differentiate citizenship and publics, in turn shaping and delimiting our understanding of the issues and planning strategies that are important to "the" public. Digital participation is not a utopian panacea, but rather a new mode of communication embedded in power politics and expert decision-making. As city governments look for strategies of meaningful citizen participation, our analysis suggests that digital technologies can be helpful tools for organizing and activating communities, but not replacements for the hard work needed to ensure inclusion and empowerment. Planners should consider how digital ICTs, engagement platforms, and other smart city strategies for participation shape and constrain who defines matters of concern, who is involved, who can contribute to decision-making, and how certain groups can meaningfully contribute to city planning processes.

References

- Arnstein, S. R. 1969. A Ladder Of Citizen Participation. *Journal of the American Institute of Planners* 35(4): 216–224. doi: 10.1080/01944366908977225.
- Barnes, M., J. Newman, A. Knops, and H. Sullivan. 2003. Constituting 'the public' in public participation. *Public Administration* 81(2): 379–399. doi: 10.1111/1467-9299.00352.
- Barnett, C., and G. Bridge. 2013. Geographies of Radical Democracy: Agonistic Pragmatism and the Formation of Affected Interests. *Annals of the Association of American Geographers* 103(4): 1022–1040. doi: 10.1080/00045608.2012.660395.
- Brabham, D. C. 2009. Crowdsourcing the Public Participation Process for Planning Projects. *Planning Theory* 8(3): 242–262. doi: 10.1177/1473095209104824.

- Cardullo, P., and R. Kitchin. 2018. Being a ‘citizen’ in the smart city: up and down the scaffold of smart citizen participation in Dublin, Ireland. *GeoJournal* 84(1): 1–13. doi: 10.1007/s10708-018-9845-8.
- Collier, S. J., J. C. Mizes, and A. von Schnitzler. 2016. Preface: Public Infrastructures / Infrastructural Publics. *Limn* 1(7).
- Conroy, M. M., and J. Evans-Cowley. 2006. E-Participation in Planning: An Analysis of Cities Adopting On-Line Citizen Participation Tools. *Environment and Planning C: Government and Policy* 24(3): 371–384. doi: 10.1068/c1k.
- Cotton, M., and P. Devine-Wright. 2012. Making electricity networks “visible”: Industry actor representations of “publics” and public engagement in infrastructure planning. *Public Understanding of Science* 21(1): 17–35. doi: 10.1177/0963662510362658.
- Coulthard, G. S. 2007. Subjects of Empire: Indigenous Peoples and the ‘Politics of Recognition’ in Canada. *Contemporary Political Theory* 6(4): 437–460. doi: 10.1057/palgrave.cpt.9300307.
- Cowley, R., S. Joss, and Y. Dayot. 2018. The smart city and its publics: insights from across six UK cities. *Urban Research & Practice* 11(1): 53–77. doi: 10.1080/17535069.2017.1293150.
- Davidoff, P. 1965. Advocacy and Pluralism in Planning. *Journal of the American Institute of Planners* 31(4): 331–338. doi: 10.1080/01944366508978187.
- Deakin, M., P. Lombardi, and I. Cooper. 2011. The IntelCities Community of Practice: The Capacity-Building, Co-Design, Evaluation, and Monitoring of E-Government Services. *Journal of Urban Technology* 18(2): 17–38. doi: 10.1080/10630732.2011.601107.
- Dewey, J. 1946. *The Public and Its Problems*. Chicago: Gateway Books.
- Dialogue Partners. 2011. Our City. Our Budget. Our Future. Public Engagement Process and Results June 2011. Dialogue Partners, Ottawa, Canada.
- Flynn, A. 2016. Participatory Budgeting – Not A One-Size-Fits-All Approach. *Public Sector Digest*. Osgoode Hall, Toronto, Canada.
- Foth, M., L. Forlano, C. Satchell, M. Gibbs, and J. Donath. 2011. *From Social Butterfly to Engaged Citizen: Urban Informatics, Social Media, Ubiquitous Computing, and Mobile Technology to Support Citizen Engagement*. MIT Press.
- Foth, M., M. Brynskov, and T. Ojala, ed. 2016. *Citizen’s right to the digital city: Urban interfaces, activism, and placemaking*. Singapore: Springer.
- Fraser, N. 1998. *Social justice in the age of identity politics: Redistribution, recognition, participation*. Working Paper FS I 98-108. WZB Discussion Paper.
- Friedmann, J. 1987. *Planning in the Public Domain: From Knowledge to Action*. Princeton University Press.
- Gabrys, J. 2014. Programming environments: environmentality and citizen sensing in the smart city. *Environment and Planning D: Society and Space* 32(1): 30 – 48. doi: 10.1068/d16812.
- Goodbrand, P., T. Humphrey, and J. Gondek. 2017. Relatives or rentals? Secondary suites through a multigenerational family lens. *The Canadian Geographer / Le Géographe canadien* 61(4): 525–539. doi: 10.1111/cag.12399.
- Graham, T. M., K. J. Milaney, C. L. Adams, and M. J. Rock. 2018. “Pets Negotiable”: How Do the Perspectives of Landlords and Property Managers Compare with Those of Younger Tenants with Dogs? *Animals* 8(3): 32. doi: 10.3390/ani8030032.
- Greenfield, A. 2013. *Against the Smart City*. New York: Do Projects.

- Hankins, K. 2017. Creative democracy and the quiet politics of the everyday. *Urban Geography* 38(4): 502–506. doi: 10.1080/02723638.2016.1272197.
- Hanzl, M. 2007. Information technology as a tool for public participation in urban planning: a review of experiments and potentials. *Design Studies* 28(3). Participatory Design: 289–307. doi: 10.1016/j.destud.2007.02.003.
- Harney, L., J. McCurry, J. Scott, and J. Wills. 2016. Developing ‘process pragmatism’ to underpin engaged research in human geography. *Progress in Human Geography* 40(3): 316–333. doi: 10.1177/0309132515623367.
- Harris, R. 2017. Secondary suites. Introduction to the Special Section: Secondary suites. *The Canadian Geographer / Le Géographe canadien* 61(4): 480–482. doi: 10.1111/cag.12422.
- Harris, R., and K. Kinsella. 2017. Secondary suites: A survey of evidence and municipal policy. *The Canadian Geographer / Le Géographe canadien* 61(4): 493–509. doi: 10.1111/cag.12424.
- Hastings, A. 1999. Discourse and urban change: Introduction to the special issue. *Urban Studies* 36(1): 7.
- Howard T. L. J., and Gaborit N. 2007. Using Virtual Environment Technology to Improve Public Participation in Urban Planning Process. *Journal of Urban Planning and Development* 133(4): 233–241. doi: 10.1061/(ASCE)0733-9488(2007)133:4(233).
- Hulchanski, J. D. 1995. The concept of housing affordability: Six contemporary uses of the housing expenditure-to-income ratio. *Housing Studies* 10(4): 471–491. doi: 10.1080/02673039508720833.
- Hum, T. 2010. Planning in Neighborhoods with Multiple Publics: Opportunities and Challenges for Community-Based Nonprofit Organizations. *Journal of Planning Education and Research* 29(4): 461–477. doi: 10.1177/0739456X10368700.
- Huxley, M. 2000. The Limits to Communicative Planning. *Journal of Planning Education and Research* 19(4): 369–377. doi: 10.1177/0739456X0001900406.
- Innes, J. E. 1998. Information in Communicative Planning. *Journal of the American Planning Association* 64(1): 52–63. doi: 10.1080/01944369808975956.
- Jacobs, K. 2006. Discourse Analysis and its Utility for Urban Policy Research. *Urban Policy and Research* 24(1). doi: 10.1080/08111140600590817.
- Joss, S., M. Cook, and Y. Dayot. 2017. Smart Cities: Towards a New Citizenship Regime? A Discourse Analysis of the British Smart City Standard. *Journal of Urban Technology* 24(4): 29–49. doi: 10.1080/10630732.2017.1336027.
- Kinsella, K. 2017. Enumerating informal housing: A field method for identifying secondary units. *The Canadian Geographer / Le Géographe canadien* 61(4): 510–524. doi: 10.1111/cag.12429.
- Kitchin, R. 2015. Making sense of smart cities: addressing present shortcomings. *Cambridge Journal of Regions, Economy and Society* 8(1): 131–136. doi: 10.1093/cjres/rsu027.
- Koopman, C. 2013. Democracy both Radical and Liberal: Political Agency in Dewey and in Laclau and Mouffe. In *Persuasion and Compulsion in Democracy*, ed. J. A. K. Kegley and K. P. Skowroński, 85–106. Rowman & Littlefield.
- Krumholz, N. 1982. A Retrospective View of Equity Planning Cleveland 1969–1979. *Journal of the American Planning Association* 48(2): 163–174. doi: 10.1080/01944368208976535.
- , 2011. *Making Equity Planning Work: Leadership in the Public Sector*. Temple University Press.

- Lake, R. W. 2017a. For creative democracy. *Urban Geography* 38(4): 507–511. doi: 10.1080/02723638.2016.1272198.
- 2017b. On poetry, pragmatism and the urban possibility of creative democracy. *Urban Geography* 38(4): 479–494. doi: 10.1080/02723638.2016.1272195.
- 2017c. Postscript: planning urban geographies and the contested rationalities of city-making. *Urban Geography* 38(2): 239–242. doi: 10.1080/02723638.2016.1206715.
- Lees, L. 2004. Urban geography: discourse analysis and urban research. *Progress in Human Geography* 28(1): 101–107. doi: 10.1191/0309132504ph473pr.
- Lefebvre, H. 1996. *Writings on Cities*. Wiley.
- Madon, S., S. Sahay, and R. Sudan. 2007. E-Government Policy and Health Information Systems Implementation in Andhra Pradesh, India: Need for Articulation of Linkages Between the Macro and the Micro. *The Information Society* 23(5): 327–344. doi: 10.1080/01972240701572764.
- Lynn, B. 2011a. Dialogue Partners discuss the final results of the engagement process call Our City, Our Budget. Our Future. The City of Calgary News Blog. June 28. Retrieved, November 10, 2018.
- 2011b. Budget Public Engagement: Phase 2 - Focus on City services. The City of Calgary News Blog. <http://www.calgarycitynews.com/2011/03/budget-public-engagement-phase-2-focus.html?view=classic>. March 9. Retrieved, November 10, 2018.
- Marres, N. 2005. Issues spark a public into being: A key but often forgotten point of the Lippmann-Dewey debate. *Making things public: Atmospheres of democracy*: 208–217.
- 2007. The Issues Deserve More Credit Pragmatist Contributions to the Study of Public Involvement in Controversy. *Social Studies of Science* 37(5): 759–780. doi: 10.1177/0306312706077367.
- Marres, N., and J. Lezaun. 2011. Materials and devices of the public: an introduction. *Economy and Society* 40(4): 489–509. doi: 10.1080/03085147.2011.602293.
- McFarlane, C., and O. Söderström. 2017. On alternative smart cities. *City* 21(3-4): 312-328. doi: 10.1080/13604813.2017.1327166.
- Moon, M. J. 2002. The Evolution of E-Government among Municipalities: Rhetoric or Reality? *Public Administration Review* 62(4): 424–433. doi: 10.1111/0033-3352.00196.
- van der Poorten, K. 2018. The Exclusionary Politics of Secondary Suites in Calgary: Homeowners Seeking Class Monopoly Rents. Thesis, Calgary, AB.: University of Calgary.
- van der Poorten, K., and B. Miller. 2017. Secondary suites, second-class citizens: The history and geography of Calgary’s most controversial housing policy. *The Canadian Geographer / Le Géographe canadien* 61(4): 564–578. doi: 10.1111/cag.12425.
- Purcell, M. 2016. For democracy: Planning and publics without the state. *Planning Theory* 15(4): 386–401. doi: 10.1177/1473095215620827.
- Purcell, M. 2017. For John Dewey (and very much also for contemporary critical theory). *Urban Geography* 38(4): 495–501. doi: 10.1080/02723638.2016.1272196.
- Ruming, K., D. Houston, and M. Amati. 2012. Multiple Suburban Publics: Rethinking Community Opposition to Consolidation in Sydney. *Geographical Research* 50(4): 421–435. doi: 10.1111/j.1745-5871.2012.00751.x.
- Sadoway, D., and S. Shekhar. 2014. (Re)Prioritizing Citizens in Smart Cities Governance: Examples of Smart Citizenship from Urban India. *The Journal of Community Informatics* 10(3).

- Schreier, M. 2012. *Qualitative Content Analysis in Practice*. SAGE.
- Seltzer, E., and D. Mahmoudi. 2013. Citizen Participation, Open Innovation, and Crowdsourcing: Challenges and Opportunities for Planning. *Journal of Planning Literature* 28(1): 3–18. doi: 10.1177/0885412212469112.
- Shelton, T., and T. Lodato. 2019. Actually existing smart citizens: expertise and (non-)participation in the making of the smart city. *City* 23(1): 35-52.
- Steady, C. N., B. S. Williams, C. L. Pettersen, and H. E. Kurtz. 2016. Placing the “Analyst” in Discourse Analysis: Iteration, Emergence and Dialogicality as Situated Process. *The Professional Geographer* 68(1): 166–173. doi: 10.1080/00330124.2015.1065550.
- Suttor, G. 2017. Basement suites: Demand, supply, space, and technology. *The Canadian Geographer / Le Géographe canadien* 61(4): 483–492. doi: 10.1111/cag.12423.
- Tanasescu, A., and A. Smart. 2010. The Limits of Social Capital: An Examination of Immigrants’ Housing Challenges in Calgary. *Journal of Sociology and Social Welfare* 37: 97.
- Tanasescu, A., E. C. Wing-tak, and A. Smart. 2010. Tops and bottoms: State tolerance of illegal housing in Hong Kong and Calgary. *Habitat International* 34(4): 478–484. doi: 10.1016/j.habitatint.2010.02.004.
- Townsend, A. 2013. *Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia*. W. W. Norton & Company.
- Vanolo, A. 2013. Smartmentality: The Smart City as Disciplinary Strategy. *Urban Studies* 51(5): 883-898. doi: 10.1177/0042098013494427.
- , 2016. Is there anybody out there? The place and role of citizens in tomorrow’s smart cities. *Futures* 82(Supplement C): 26–36. doi: 10.1016/j.futures.2016.05.010.
- Watson, S. 2013. *City Publics : The (Dis)enchantments of Urban Encounters*. Routledge. doi: 10.4324/9780203962954.
- Williams, L. M. 2012. *A Better Budget: Ideas for a healthy budget process in Toronto*. Wellesley Institute. Toronto, Canada.
- Young, I. M. 1997. Unruly Categories: A Critique of Nancy Fraser’s Dual Systems Theory. *New Left Review* (222): 147–160.

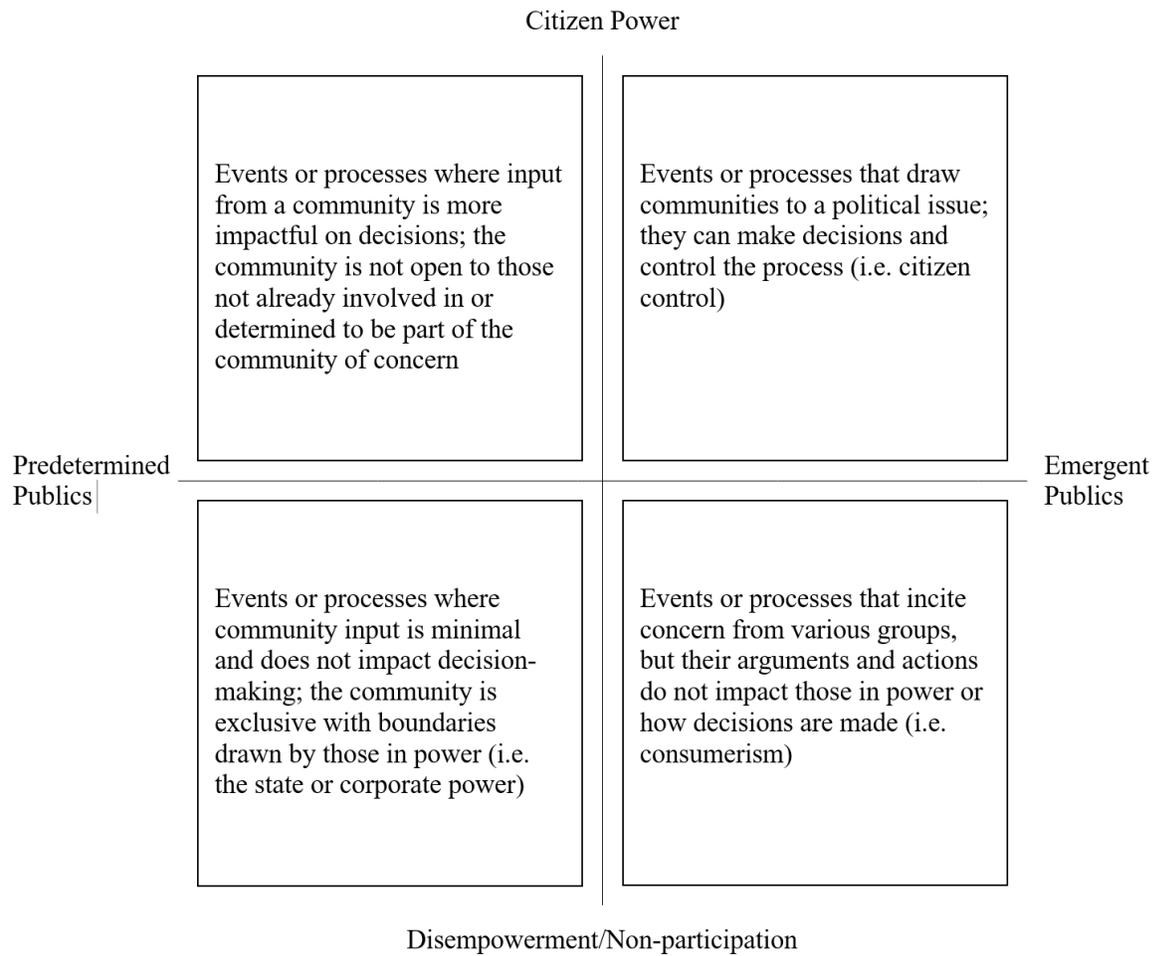


Figure 1
Conceptual Framework for Event Mapping

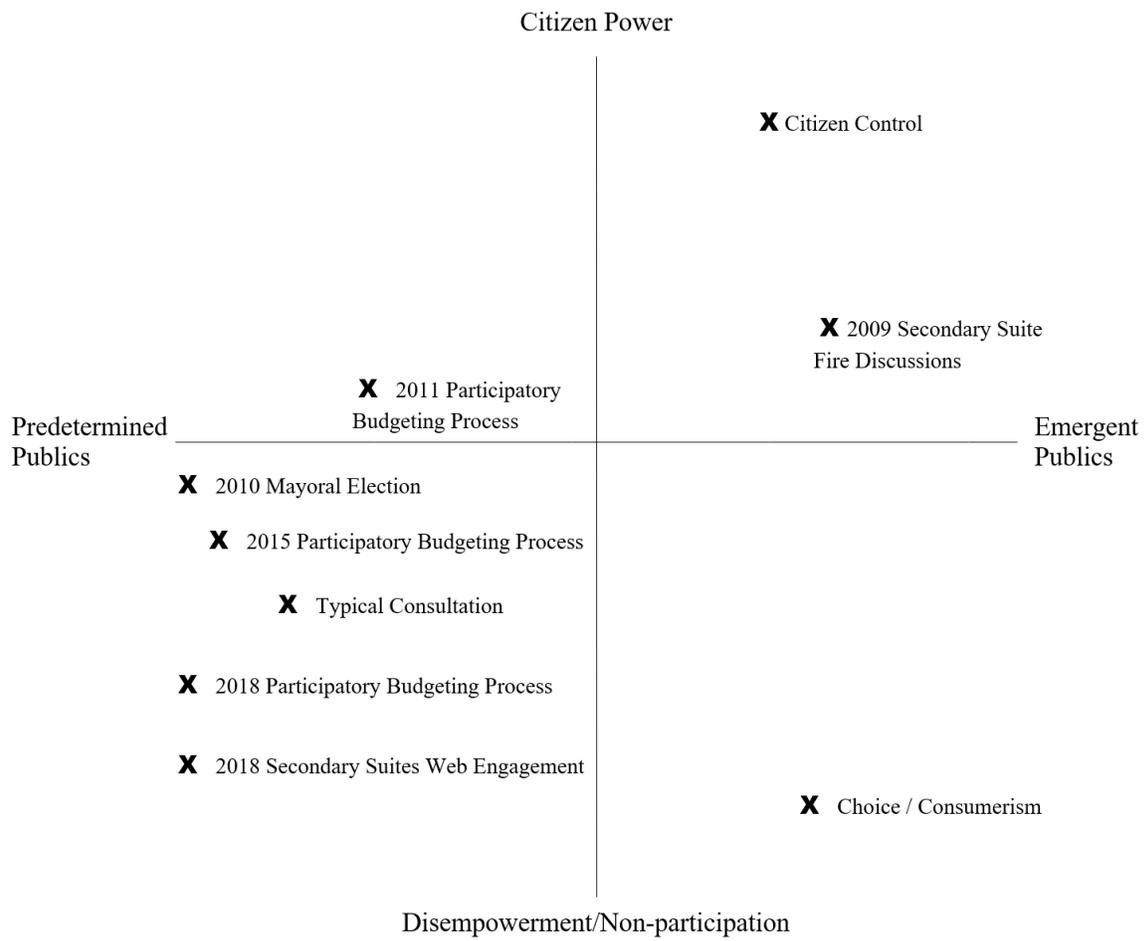


Figure 2
Public Issues related to Participatory Budget-setting and Secondary Suites
