

**MUNDANE SURVEILLANCE: TRACKING MOBILE APPLICATIONS
AND URBAN ACCOUNTING IN CANADIAN BUSINESS IMPROVEMENT
AREAS**

By

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A thesis submitted to the Department of Sociology

In conformity with the requirements for
the degree of Doctor of Philosophy

Queen's University

Kingston, Ontario, Canada

June 2019

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Abstract

In response to splintering streetscapes and in order to remain relevant amidst “smart cities” and “urban big data”, Business Improvement Areas (BIAs) have moved away from clipboards and ledgers, to become early adopters of smarter urban technologies. Initially, BIAs began using social media metrics, pedestrian counters, closed-circuit television and i-beacons to collect data, demonstrate return on investment, and engage in their own corporate storytelling. Increasingly today, BIAs use geospatial applications and platforms to better monitor, manage and control the city and its assets. While much smaller in scope and aim than smart city ventures, these forms of entrepreneurial and platform urbanism are presented as ways of updating and automating BIA practices, making their mandates manageable, and promoting accountability across stakeholders. *With seemingly mundane aims, how are these accountability relations enacted on the ground, and what do they do?* My dissertation combines extensive document collection, conference ethnography, along with interviews and work-shadowing data in order to trace the mobility and use of geospatial applications and platforms by BIAs in Toronto and Vancouver. Focused on how BIAs created and manage value, and make their mandates *doable*, I illustrate how these technologies render, (ac)count for, police and govern urban spaces and populations. Cases of the *actually existing smart city* or *ordinary smart city* I contend these valuation devices, help transform matters of concern into matters of fact. I argue that these technologies not only make the spaces and materials of the city countable, but by extension, they also hold the users and uses of space to account. Data and the surrounding tellable stories promote relations of visibility and accountability that articulate and delegate work, stabilize knowledge claims and promote ontological politics that strengthens the authority of BIAs over the urban landscape.

Acknowledgements

To everyone – my participants, teachers, mentors, colleagues, friends, and family – who made this research possible. This dissertation was a group effort and I cannot thank you enough for your time, support and encouragement. In particular, I want to begin by thanking my participants, for making time to talk to me and welcoming me into your spaces.

My gratitude goes to the Queen's Department of Sociology, the Surveillance Studies Centre (SSC), and my committee, I cannot express enough thanks for the continued support and kindness. To my supervisor, Dr. David Murakami Wood, the past five has exceeded all my initial hopes and goals. It would not have been possible without your support, guidance, compassion mentorship and encouragement to pursue every opportunity and supplementary project. It is truly hard to say how thankful I am – from supporting field work or time in London, to the OPC project, these experiences have made this PhD for me. To Dr. David Lyon, thank you for the wealth of knowledge and guidance you brought to this project, as well as your constant work at the SSC – I am thankful for finding such a welcoming academic home. To Drs. Betsy Donald, Norma Möllers, Annette Burfoot, Martin Hand, and my external examiner Randy Lippert, thank you for your constructive contributions to this project. I am incredibly grateful for your feedback, mentorship and conversations over the course of my PhD. A continued thanks to Drs. Wendy Chan, Gary Teeple, Ann Travers, and Bob Menzies – I would not be finishing this degree without your lasting mentorship. And to all of the department and centre staff – Michelle, Celina, Michelle, Wendy, Emily and Joan – I appreciate your guidance and warmth charting this, at times, bureaucratic processes.

To all my peers I have met during my time at Queen's – I am so appreciative of your friendship and collegiality. It was a pleasure getting to know all of you – Alice, Marsha, Rui,

Michelle, Vincenzo, Jenny, Mel, Özge, Jeff, Alana, Midori, Sachil, Abigail, Lisa, Deyra, Sylvia, Matt, Jen, Tyler, Tommy, Tim – and sincere apologies to anyone I may have missed. I will fondly remember our office chats, coffee outings and trivia nights which provided wonderful reprieve. A special thanks to Kyle, Tarah, sava, Ciara, and Steve – it is hard to put into words how thankful I am for your support, patience and friendship.

I'm greatly indebted to my family, Murray, Phyllis and Vickie, I would not be here without your support. Thank you all for instilling a passion for learning and letting me chart my own path (I guess there was no running from statistics or accounting).

Thank you to the Social Sciences and Humanities Research Council of Canada, Queen's University, and the Surveillance Studies Centre for supporting this research. This project would not have been possible without this support.

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List of Abbreviations

ANT	Actor Network Theory
BA	Business Association
BC	British Columbia
BIA	Business Improvement Area
BID	Business Improvement District
BIZ	Business Improvement Zone
BRZ	Business Revitalization Zone
C2G	Citizen to Government
CCTV	Close Circuit Television
CDA	Critical Discourse Analysis
CDMA	Commercial District Management Authorities
CID	Community Improvement District
CLEOC	City Large Scale Event and Oversight Committee
CRM	Customer Relationship Management
CTO	Chief Technology Officer
DVBIA	Downtown Vancouver Business Improvement Association
DYBIA	Downtown Yonge Business Improvement Area
ECM	Extended Case Method
FDBIA	Financial District Business Improvement Area
FOI	Freedom of Information
HNBIA	Hastings North Business Improvement Area
HxBIA	Hastings Crossing Business Improvement Area
KPI	Key Performance Indicator
NID	Neighbourhood Improvement District
NPM	New Public Management
OBIAA	Ontario Business Improvement Area Association
PID	Public Improvement District
PPP	Public Private Partnership
ROI	Return on Investment
SBIA	Strathcona Business Improvement Area
SID	Special Improvement District
SLA	Service Level Agreements
SSA	Special Service Area
SSMID	Self-Supported Municipal Improvement District
STP	Straight Through Processing
STS	Science and Technology Studies
TABIA	Toronto Association of Business Improvement Areas
TOED	Toronto Entertainment District
VPD	Vancouver Police Department

Preface

On October 15th 2011, the Vancouver branch of the Occupy Movement gathered in ṣx^wλənəq Xwtl'e7énk Square on the traditional lands of the Musqueam, Tsleil-Waututh and Squamish Nations of the Coast Salish people. I stood in a large crowd of diverse and at times disparate voices as community members discussed inequality, housing, violence and other matters of concern. Occupying lands in front of the art gallery, the tent city in the heart of Vancouver's commercial district challenged the spatial boundaries of the Downtown Eastside. Within two weeks of its construction, the City, backed by local business, called for its closure. By November 21st, the courts imposed steep sanctions and the Vancouver Police Department (VPD), with the help of other agencies, forcibly removed Occupiers from the “public” square.

Many months and Freedom of Information (FOI) requests later, I found myself sifting through thousands of documents concerning the social control of protest in Canada – from the clearance of Occupy camps to the criminalization of masking. One heavily redacted chain between the City and the VPD concerning the estimated costs of Occupy Vancouver caught my attention. In it, the Vancouver City manager stated how invaluable the Downtown Vancouver Business Improvement Association (DVBIA) was to the handling of the “Occupy Issue”. Specifically, they referenced the use of a hotel business centre to help with the printing of legal work and the intermittent use of hotel rooms by the Vancouver Police Department and Fire and Rescue Services for the 24/7 surveillance of the tent city.

But the role of the DVBIA did not end with Occupy. Like other catalyzing events, it became a means of legitimizing an information communications network between public and private agencies. In the 2012 issue of *Downtown Matters*, the DVBIA executive director stressed that Occupy necessitated the creation of a “robust network for disseminating information about critical incident matters.” In order to help members manage the protest,

“The DVBIA gathered its own intelligence and obtained tips from the VPD, such as names of businesses that were at risk of being targeted, and protest march routes. Updates were sent out around the clock. Throughout Occupy Vancouver, the DVBIA solicited advice and perspectives from fellow BIAs in Canada and the United States... Going forward, the Vancouver Police Department and the City’s Large Event Oversight Committee [CLEOC] have both agreed to share information about future public gatherings with the DVBIA” (DVBIA, 2012).

By viewing “public gatherings” as potential riots and revenue losses for the downtown core, the DVBIA secured its membership on the CLEOC and further legitimized its administrative role. A role which was further stabilized in the aftermath of the 2010 G20 Toronto Summit protests and the 2011 Vancouver Stanley Cup riot, when DVBIA loss prevention officers provided expert testimony to a Senate standing committee in support of anti-masking legislation (Bill C-309).

Outside of the scope of my previous research, I began my dissertation wanting to know more about these seemingly mundane, or to some, invisible levels of governance, whose actions are anything but mundane.



Connected:

Communications network helps members manage Occupy Vancouver protest

We now have a robust network for disseminating information. This is a legacy project that will keep members up-to-date about future critical incidences.

- Charles Gauthier, DVBIA Executive Director

During the month-long Occupy Vancouver protest outside the Vancouver Art Gallery (VAG) in Fall 2011, the DVBIA stepped up its role as an information resource by providing daily – and often hourly – updates to members.

“During the Stanley Cup riot, we didn't have a comprehensive distribution list to communicate quickly on the move with our major property owners,” says Charles Gauthier, DVBIA Executive Director. “We now have a robust network for

disseminating information on the ground from a mobile device. This is a legacy project that will keep members up-to-date about future critical incidence matters.”

The DVBIA gathered its own intelligence and obtained tips from the VPD, such as names of businesses that were at risk of being targeted, and protest march routes. Updates were sent out around the clock. Throughout Occupy Vancouver, the DVBIA solicited advice and perspectives from fellow BIAs in Canada and the United States. Going

forward, the Vancouver Police Department and the City's Large Events Oversight Committee have both agreed to share information about future public gatherings with the DVBIA.

DVBIA updates were particularly helpful to Vickie Bissett, a Brookfield Office Properties Manager at Royal Centre, which was occupied by protesters. “We went into lock-down when our lobby was occupied, so our resources were stretched,” Bissett says. “Charles and his team leveraged relationships with police, security experts and hotel operators to feed us information, and kept us informed of mitigation strategies being employed by other building owners.”

The Occupy movement, while peaceful, was disruptive to both businesses and commuters. Hotel washrooms were used inappropriately and without permission, and the protest generated excessive noise, day and night. The unpredictability of marches affected transportation and roadways. The Coast Capital Christmas Square was forced to change locations from the VAG to Thurlow Street, the Amazon Christmas Tree Lighting Ceremony – which raises funds for local charities – was instead installed at Jack Poole Plaza, and film shoots were affected.

...continued on page 3



Robert D. Cima
Regional Vice President and General Manager, Four Seasons Hotel Vancouver

We are grateful and indebted to the DVBIA for helping us through the Occupy Vancouver protest. It was a trying time for us and our guests, particularly due to street closures. Charles and his team did an outstanding job keeping us hoteliers near the Vancouver Art Gallery up-to-date with information, which was presented in a non-judgmental point of view. The DVBIA is a team of true professionals.

Figure 1. Communications Network (DVBIA, 2012)

Chapter 1

Introduction: Grounding Governance and Accountability

Urban governance has been caught in an unending crisis since the 1960s (Harvey, 1989, 2004; Graham & Marvin, 2001). Similarly, trapped in a *permanent critique of government* (Foucault, 2008; Willmott 2017), cities, specifically their governments were deemed by businessmen, policy-makers and academics to be in need of rolling back, retrenching, and privatizing (Harvey, 1989; Peck 2002; Peck & Tickell, 2007). Focused on de-responsibilizing governments, cities were also central in this radical restructuring from *managerial* to market-based economic development (Coaffee, Murakami Wood, Rogers, 2009; Harvey, 1989). Predating on and reflecting broader trends in neoliberalization, cities have repeatedly turned towards the entrepreneurial urbanism and technological solutionism marketed by the private sector (Harvey, 1989; Jessop & Sum, 2000; Peck & Tickell 2002). This focus on “revitalization” and “development” has resulted in new forms of networked governance that link select cities and regions, rerouting goods and services to create *premium networked spaces* (Marvin & Graham, 2001). Settling in global and aspirational cities, these governance models are focused on competitive advantage and differentiation, and necessitate constant innovation in order to “create” value (Harvey, 1989; Sassen, 2004). Broadly referred to as *New Public Management* (NPM) (see Hood, 1991; 1995) or public private partnerships (PPP), these messy hybrids and *market devices* (Muniesa, Millo & Callon, 2007) configure and perform economic calculative capacities and function as sites of *actually existing neoliberalism* (Brenner & Theodore, 2002; Peck, 2013). One of the most advanced of these urban assemblages has been the Business

Improvement Area (BIA) or Business Improvement District (BID).¹ Initially a form of collective action and civic boosterism to address free-rider problems, BIA policy has circulated and mutated through trans-urban policy pipelines, to become a global fixture for revitalization and city building (Lippert, 2014; Cook & Ward, 2012). An innovation of blending the expertise of NPM with business acumen, BIAs were touted as a way to “provide a new functional answer to the dysfunctional features associated with [...] downtown districts, such as poor transportation planning, unkempt streets, and ineffective downtown marketing initiatives” (Mitchell, 2001, p. 203).

However, they are not “the” solution to urban governance (if there is one), instead the private sector continues to roll out innovations – and “smart cities”² have been marketed as the latest fix (Hollands, 2008). As (big) data urbanism captivates the public discourse, municipalities, economic developers and businesses have begun piloting a range of spatial and locative technologies (Kitchin 2014a). Forms of *technological solutionism* (Morozov, 2013) – from integrated platforms and city operating systems to crowd-sourced, open data initiatives – these ventures promise to solve social, environmental and economic challenges by making infrastructures and services more efficient (Batty, 2017; Gabrys, 2016; Marvin, Luque-Ayala & McFarlane, 2016). Like their previous incarnations, smart cities and platform urbanism – the

¹ The term BIA is more commonly used in Canada; however, it is synonymous with terms used in other jurisdictions. These terms include Business Association (BA), Business Improvement District (BID), Business Improvement Zone (BIZ), Business Revitalization Zone (BRZ), Community Improvement District (CID), Commercial District Management Authorities (CDMA), Neighbourhood Improvement Districts (NID), Public Improvement District (PID), Self-Supported Municipal Improvement District (SSMID), Special Services Area (SSA), or Special Improvement District (SID).

² As the latest rebranding of computable cities (Batty, 1997) and cybercities (Graham, 2004), and more recently smart urbanism (Marvin, Luque-Ayala & McFarlane, 2016), smart cities refer to the blending of the Internet of Things with knowledge economies (Kitchin, 2014a). Caragliu, Bo, and Nijkamp (2011) suggest that “a city can be defined as ‘smart’ when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory action and engagement” (p. 70).

latter referring to the adoption of pervasive, ubiquitous or ambient technological platforms to manage cities in whole or in part – are predicated on datafication and quantification (Barns, 2014; van Dijck, 2014, 2017). In many cases, rather than their utopian visions, these “smart” projects reinforce market logics and economic growth in an era of austerity (Shelton, Zook & Wiig, 2015). Challenging the hype and *corporate storytelling* (Söderström, Paasche & Klauser, 2014) of envisioned and greenfield projects, the *actually existing smart city* (Shelton, et al., 2015) is far more *ordinary* (Farías & Widmer, 2017). These smart urban environments are multiple, unstable and made up of assemblages of actors, ideologies and technologies – most of which remain very mundane and somewhat familiar.

Not to be outmoded in the wake of “smart” and “urban big data”, BIAs have moved away from clipboards and ledgers, to become early adopters of smarter urban technologies. Initially adopting social media metrics, pedestrian counters, closed-circuit television (CCTV) and i-beacons, to collect data, demonstrate return on investment (ROI), and engage in their *own* corporate storytelling; increasingly today, they are utilizing geospatial applications (apps) and platforms have been developed and marketed to the BIA sphere. While much smaller in scope and aim, when compared to smart city ventures, these forms of platform urbanism and apps are presented as ways of updating and automating existing BIA practices, making their mandates more manageable, and promoting accountability across stakeholders. *With seemingly mundane aims, how are these accountability relations enacted on the ground, and what do they do?*

To explore this question further, in this dissertation, I trace the mobility and use of geospatial applications and platforms by BIAs in two Canadian cities. By focusing on how they create and manage value, and make their mandates *doable*³, I illustrate how these adopted *market*

³ Doability can be understood as the “alignment of several levels of work organization” (Fujimura, 1987, p. 258). Specifically, experiments (set of tasks), laboratory (combination of experiments and other tasks); and the social

devices and associated practices render, (ac)count for, police⁴ and govern⁵ urban spaces and populations. This chapter outlines background information, key concepts, and initial insights to contextualize the *objects* of study – BIAs, data-driven practices, and geospatial applications. The later sections serve as a guide for the remainder of the document and detail the research problem, methods and cases, and organization of the dissertation.

1.1 What Are BIAs and What Do They Do?

Since 1970, property and business owners in cities throughout North America realized that in order to revitalize and sustain vibrant downtowns, city centers and neighborhood districts requires special attention beyond the services city administrations could provide alone. These private-sector owners came together to form non-profit management associations to deliver key services within the boundaries of their districts (IDA, 2019a).

First conceived in Toronto in 1970, as a local low-cost response to the city’s “free-rider problem”, BIAs have become prominent fixtures of the urban landscape with over 2,500 in North America and 4,000 worldwide (Briffault, 1999; IDA, 2019a). Usually established in areas with a high density of existing commercial space, BIAs are formed through the collective action and onboarding of private business owners (Meltzer, 2012). After establishing boards, budgets, and

world (the work of laboratories, stakeholders, and others focused on the same problem). Simakova and Neyland (2008) apply this process to technological development and market making. They note the importance of identifying and assembling of a constituency, the narration of a tellable story, and the development of a compelling version as central to the stability of the market.

⁴ Expanded on in section 2.3, policing, from here on is defined broadly in a Foucauldian sense as “any activity that is expressly designed and intended to establish and maintain (or enforce) a defined order within a community” (Hermer, Kempa, Shearing, Stenning & Wood, 2005).

⁵ Governance has become a key term across the public and private sectors; however, there are multiple meanings of the term governance (as well as related terminology). In a traditional sense, corporate governance refers to the reform of existing organizational structures (Flather, 2006 cited in Woolgar & Neyland 2013), whereas recent Neo-Foucauldian discussions of governance challenge and extend this conventional notion. Underpinning the definition of policing above, this work has focused on the *art of governance*, or governmentality the specific practices and rationalities of governance (Foucault, 1977, 2008). Broadly, this body of work focuses on: 1) apparatuses of *power-knowledge*, which render reality thinkable and things calculable, 2) connections between the production of truth and immorality, 3) the shift from disciplined to *responsibilized* citizenry, and 4) the diffuse forms of power that enable *government at a distance* (Dean, 2010; Rose, 1996; Rose & Miller, 1992). The multiple meanings and interpretations of the practice factor into the proceeding analysis and discussion.

boundaries, BIAs are formally instituted under provincial and municipal bylaws⁶ (OBIAA, 2019). For example, the City of Toronto (2019a) and the City of Vancouver (2019) respectively, define BIAs as,

An association of commercial property owners and tenants within a defined area who work in partnership with the City to create thriving, competitive, and safe business areas that attract shoppers, diners, tourists, and new businesses.

Specially funded business districts. The districts are managed by non-profit groups of property owners and business tenants whose goal is to promote and improve their business district.

Highly mobile and contingent upon local conditions, BIAs can be understood as privately governed, publicly sanctioned and specially funded, geographic areas in which private tax practices (e.g., district levies) are implemented to extend municipal services (Brooks, 2008; McCann & Ward, 2012; Hoyt & Gopal-Agge, 2007). The extension of services varies by jurisdiction, but broadly involves mandates that seek to maintain and improve the geographic area (Bookman & Woolford, 2013; Hannigan, 2010). For example, in the City of Toronto (2019a) BIAs are mandated to:

1. Oversee the improvement and maintenance of municipally-owned land beyond those levels provided through general tax base (capital projects);
2. Promote the area as a business, employment, tourist or shopping area (business directories, festivals, advertising);
3. Offer graffiti and poster removal services respecting building facades visible from the street;
4. Undertake safety and security initiatives within the BIA;
5. Undertake strategic planning initiatives necessary to address business improvement area (e.g., business recruitment, market studies, capital plans); and

⁶ In Ontario (ON) and British Columbia (BC) The City of Toronto Act (and comparable municipal legislation in other jurisdictions) and the British Columbia Local Government Act respectively are the legal documents outlining BIA's incorporation, governance and organization, power and responsibilities and financial requirements. While tailored to and by each jurisdiction, Mitchell (2001) broadly defines the attributes of a BIA as: 1) recognized by law; 2) created according to a process; 3) formed as an organization; 4) financed by a special assessment; 4) governed by a board; 5) managed by people; and 6) reviewed periodically (p. 39).

6. Advocate on behalf of the interests of the BIAs.

Broadly focused on revitalizing and promoting economic activity and competition within their areas, the specific programs and practices BIAs adopt to address these mandates are primarily directed by membership (Isakov, 2009). This focus or set of goals, usually aligns with placemaking and branding, in order to distinguish areas from each other. One BIA staff member explained,

Our goal, our BIA vision, is to highlight this area as a major hub for the city. As an art and cultural destination that has most of the city's main attractions. We're really primarily a destination of experience that shows the diversity of the city. From that, our responsibility is primarily to our property owners because we're a BIA. So, by being directly responsible to those property owners, that's our measure of success.

Every BIA is very different based on what their needs are. Some of them are smaller and they have a smaller budget so they may put up a tree in the park or might do an annual festival or just a bit of public random improvements. For us down here, because we are such a mixed diverse neighborhood, we have a number of things that we have to really focus on. Our biggest focus to make this a destination of experience and support that through capital projects. Through how we market the area, promote the area, through being involved in a lot of the city studies.

They saw their area in terms of assets, attractions and experiences, and to them the role of a BIA was to promote these elements on behalf of their constituency. Another innovative BIA explained their broad mandates in terms of a hierarchy of services. As depicted in Figure 2, maintenance undergirded all other activities in the area, such as festivals, marketing, beautification, business retention and recruitment, development projects, and advocacy. In other words, services and programs were contingent and interrelated.



Figure 2. Hierarchy of BIA Services (DYBIA, 2017)

Representative of broad mandates, BIAs are increasingly developing and adopting specific programs and practices. For example, while “clean and safe” was not part of “the original” 1970 Toronto bylaw, it has been incorporated through policy mutation and is now an integral baseline for BIA work (Lippert, 2007, 2010, 2012).⁷ Connected to broken windows policing, examples of these sanitization and crime control programs include street cleaning, façade regeneration, graffiti removal, target hardening, loss prevention programs and a range of private security personnel and programs. Beautification – banners, flowers, light displays, art installations, and activations – is closely related to and potentially indistinguishable from clean and safe in some areas and has become another way of presenting unique identities and status.

⁷ This mutation can be traced to the rise of BIAs in New York and New Jersey during the late 1980s-1990s. Central actors in urban revitalization projects, BIAs implemented practices aligning with and informing broader “broken windows” and “safe and clean” policies (Lippert, 2012).

While treated as a separate mandate in Figure 2, many BIAs, as well as the International Downtown Association (IDA), note the growing importance of advocacy at all mandate levels.

1.2 Making Up and Making Do

For their proponents, BIAs, but more specifically the business members that typically comprise them, are a part of *small-scale entrepreneurialism* (Gomez, Isakov & Semansky, 2015; Hoyt, 2005a). Gomez, Isakov and Semansky (2015) dwell on features of “independent”, “small” and “local”, noting the autonomy that comes with forms of ownership, bound geographic spaces and limited resources and strategies that accompany these business models. While this typology may hold in terms of individual membership in particular cases, urban BIAs overcome this characterisation to varying degrees.

Although frequently presented as forms of “self-help” or private ventures, public services (e.g., police, garbage collection, etc.) are foundational to BIA programs (Lippert, 2014). Through leveraging grants and networking fragmented municipal services, BIAs engage in self-serving practices – directing and diverting services in order to fulfil their mandates. Tempering their characterization as forms of neoliberalism or responsabilization, Lippert (2010) notes that,

BIDs are able to increasingly seize public funds in part because, with the help of the city-administered levy, they bind disparate interests as never before – the retail clothing store, the restaurant, the dentist’s office, the adult massage parlour, the convenience store – into a powerful spatially delimited urban assemblage (pp. 484-485).

Often representing a diverse and large membership – with national and transnational anchor tenants as well as small and medium businesses – these urban assemblages align stakeholders toward common visions and mandates. Despite being spatially delineated through legislation, these assemblages are not so straightforwardly placed, since many are imbricated in trans-urban policy pipelines (Ward, 2011). Facilitated by regional and international placemaking

organizations, such as IDA, these pipelines for sharing “strategies and find[ing] inspiration”⁸ help to network BIAs, cities, regions, industry experts and *travelling technocrats* (Larner & Laurie, 2010). Through conferences, site visits and *vehicular ideas* (Peck, 2012), members share and search for innovative solutions to a range of common concerns (Cook & Ward, 2012; IDA, 2019b). These strategies and practices are *made to travel well* across a variety of contexts and landscapes and reinforce the market logics and rationalities found in variants of the BIA model. For example, as shown in Figure 3, the IDA (2019b) has projected a list of top issues districts will face over the next three to five years.

ECONOMY	EXPERIENCE	PARTNERSHIP
<ul style="list-style-type: none"> • Downtown residential • Diverse retail mix • Ability to attract commercial investment • Retaining independent, local property owners • Talent recruitment and retention • Tools of incentives to spur on economic development • Nighttime economy and management 	<ul style="list-style-type: none"> • Activating public space • Pedestrian improvements • Cycle infrastructure • Maintaining authentic feel and character of the community • Infill development and adaptive reuse • Public art and creative placemaking • Access to urban parks • Urban transit 	<ul style="list-style-type: none"> • Implementing successful public-private -partnerships • Safety • Ageing Infrastructure • Engaging anchor institutions • Homelessness • Parking solutions

Figure 3. Top Urban Issues (IDA, 2019b)

Highlighting *matters of concern* (Latour, 2004), many of which require partners and assemblages far beyond geographic areas and membership, BIAs are once again cast as a solution to a multitude of urban matters. But these self-defined concerns also highlight that BIAs are not *the* solution to the unending crisis of urban governance, they are not positioned to solve complex social issues. As one executive director explained,

How do I, as BIA [director] carry out my mandate of promoting economic development and attracting people to [my street] amidst increasing homelessness, mental health and street disorder [crisis]? Sorry, there’s a lot of bad news. There are no fix-it solutions. Complex social issues are not going to be resolved overnight and until there’s a significant and coordinated investment by all levels of government, and a holistic approach to housing, addictions, mental health,

⁸ (see <https://www.ida-downtown.org>)

employability, etc., we can only do our best to deal with the symptoms, and continue to advocate for change. If it isn't reported, it didn't happen.

BIA's aren't in the business of systemic solutions. Instead as economic, political and social actors, they are concerned with the creation and management of value. Their mandates are their matters of concern, and they are interested in making their mandates more *doable*. As noted in the quote above, data and the resulting visibility and accountability that they are marketed to promote, has resulted in the expansion of data collecting practices in most BIA programs. Counting, now a central feature of BIA practices, aligns with and extends existing market logics and valuation practices, as well as mandates of fiscal transparency and accountability.

1.3 BIAs, Data, Platforms and Applications

As such, data collection has become a BIA organizational imperative, doing work at multiple "levels." For instance, within the organization data provide insights into current operational functioning and future needs, and externally they demonstrate the organization's work and value to membership. Beyond that, at a "City level", data are purported to improve the delivery of services, funds and recognition. Specifically, "having the data" is presented as a means of holding public and private agencies to account, while also increasing the BIA's visibility more broadly. Furthermore, as part of trans-urban policy pipelines and other networks (e.g., tech companies, research consulting firms etc.), these *tellable* local stories become compelling accounts to legitimize and encourage further collecting practices. As illustrated in Figure 4, one research consulting firm immersed in this policy/urban/data assemblage emphatically called attention to the need for data collection.

Small BIDs don't have the resources to have a data team at their fingertips
Medium BIDs struggle to allocate resources to data
Bigger BIDs allocate the resources to have data staff
The bottom line is that everyone should be using DATA

Figure 4. *The Power of Data* (Springboard, 2017)

The “power of data” has become a hot topic at industry events with numerous reports (e.g., OBIAA, 2017), toolkits (CUI, 2016), how-to resources, templates, and apps circulating in the BIA sphere. Data has been positioned as a means for a BIA to “better understand its potential; make more effective decisions; and raise awareness of the downtown’s role and position in attracting its fair share of investment” (CUI, 2016). Value is a central and enduring feature to these texts and practices, which call for greater recognition of the *value* BIAs bring to downtowns. A recognition that, as discussed throughout the empiric chapters extends beyond purely economic understandings.

Data collection, cast as a means of determining value, has resulted in the adoption of new technologies for valuation practices. Aligning with their own mandates, as market devices, BIAs have gravitated to geospatial applications to better quantify value, promote accountability, and make their mandates doable. Usually a subset of operations and public maintenance programs, these applications – ranging from Customer Relationship Management (CRM) platforms, to public city-based digital 311⁹ solutions – offer BIAs additional (though limited) tools that automate work, streamline accounting and auditing practices, and provide insights into small-scale planning.

⁹ 311, in the North American context is a special phone number for reporting non-emergency issues to the municipality. Established as a means of “talking to the city”, 311 lines have been in operation in Toronto and Vancouver since the late 2000s.

As forms of platform urbanism, these apps add another layer to the stack of digital and corporate governance in the city (Bratton 2016; Srnicek, 2017). More than a technological term or a digitally-mediated, cloud based, eco-system, these platforms are co-generative and enact “new” forms of socio-political organization that go beyond “the city” or corporations (Barns, 2018; Gillespie, 2010; Murakami Wood & Mackinnon 2019). However, their perceived immateriality, neutrality and flexibility serve to shape and align actors (Rodgers & Moore, 2018). As Bratton (2016) contends,

Platforms are what platforms do. They pull things together into temporary higher-order aggregations and, in principle, add value both to what is brought into the platform and to the platform itself (p. 41)

This malleability, in the case of the city, casts “it” as a lab, or test bed, and reconfigures publics, spaces, and experiences through the “digital” (Barns, 2018). While for some these smart city applications may make for more humane futures, public participation, and greater transparency, they may also reinforce entrepreneurial governance through technocratic rationalities (Almedia, Doneda & Moreira de Costa, 2018; Sadowski & Pasquale, 2015; van der Graaf & Ballon 2018).

In the context of the BIA realm, at one end of the platform spectrum are proprietary CRM and property management applications (e.g., Block by Block,¹⁰ GeoPal,¹¹ Cube84,¹² etc.). Distinguished from “all-in platforms” or back end systems, these mid-range lower-cost options offer partial and targeted solutions to address safety, beautification, hospitality and planning needs. With relatively comparable features or use-cases, these mid-range platforms support incident reporting, ambassador tracking, maintenance tracking, equipment inventory, person of interest databases, as well as analytics, metrics and reporting features (see section 5.3 for a

¹⁰ (see <http://blockbyblock.com>)

¹¹ (see <https://www.geopal.com>)

¹² (see <https://cube84.com>)

detailed example). As explained by one app sales manager, these *partial platforms* (Murakami Wood & Mackinnon, 2019) enable customizable data collection, interoperable reporting practices, and provide tools for maximizing effectiveness and promoting accountability.

At the other end of the spectrum are city-based smart or digital solutions for citizen to government (C2G) communication. These apps enable the production of public information and open data, public reporting, and (un)solicited comments. Centered on the idea of the citizen-user, citizen as sensor, and citizen scientist, these apps require an engaged and *deviced* public to volunteer data. In particular, apps for 311 reporting have become increasingly popular in many cities (e.g., See-Click-Fix,¹³ Fix-My-Street,¹⁴ City Sourced,¹⁵ etc.) (Baykurt, 2011). In an attempt to reduce strain on non-emergency call centres and make public realm maintenance service requests “more efficient”, cities have bought or designed these engagement apps. Highly customizable and related to existing municipal services, these apps and related platforms, dashboards, and data offer a range of inventory and tracking features (see section 6.3 for a detailed example). While citizens were the intended target users of these C2G apps, innovative BIAs – either unable to afford private technology or due to the lack of interoperability between City and private systems – have adopted these apps in order to hold the City accountable for service delivery.

¹³ (see <https://seeclickfix.com>)

¹⁴ (see <https://www.fixmystreet.com>)

¹⁵ (<https://www.citysourced.com>)

1.4 BIAs and Towards Ordinary Smart Cities

Addressing our cities' most pressing challenges also requires a human touch that builds relationships between disparate constituencies, so they can come together to act collectively. That, perhaps, is our role in the smart cities movement: not only to look for ways to pilot new technologies, but to connect technology and people. As place management practitioners, our on-the-ground experience makes us uniquely situated to serve as a bridge between government, businesses and people from all walks of life that make our neighborhoods vibrant. Sometimes we need technology for that; sometimes we just need the human touch.

Tim Tompkins, President of Times Square Alliance¹⁶

While reconceptualizing “smart” in terms of BIA activity and attempting to stabilize their placement in light of new forms of urban entrepreneurialism, Tompkins positioned BIAs as another human spoke in the *promissory* smart city movement. “Data-driven” and “big data” have become buzzwords of late, and due to the associated volume, variety and velocity, many have stressed its radical potential for changing ways of knowing, analyzing and intervening (Andrejevic & Gates, 2014; boyd & Crawford, 2012; Couldry, 2016). Critical of those potentials, others have highlighted big data’s relation to profit motives or *surveillance capitalism* (Ball, 2019; Zuboff, 2015), as well as its potential to increase social sorting and exacerbate vulnerabilities (Lyon, 2014). These aspirational data collection and integrative practices are captivating businesses and governments alike. However, the role of bureaucratic (or calculative) agencies in deploying *counting* technologies is nothing new (Rule, 1973). This purposeful counting of people and things – for Foucault (2008) biopolitics, demarcating the state and its constituents – is foundational to governance. Datafication, the systemic collection and coding of data, determines not only how we see people, but also how we see neighbourhoods and society

¹⁶ (T. Tompkins, personal communication, June 28, 2018). Tompkins IDA has been a keynote speaker at many IDA conferences and is a regular contributor the “IDA Inspire” newsletter. This comment was in reference to the third IDA World Towns Leadership Summit held in Berlin in June 2018. Focused on role of BIAs in the smart city movement, and I return to this event in the conclusion.

(Hacking, 1986, 1995; Van Dijck, 2014). In fact, numbers, counting, and the categories we use to make sense of them are closely connected to ideas of order, control and improvement (Hacking, 2007). Furthermore, these calculative practices of categorizing, capturing, storing and reporting are an increasingly prevalent feature of everyday life (Lapsley, Miller and Panozzo 2010; Neyland 2006; Van Dijck, 2014). Counting and accounting create new arrangements of governance, whether intentionally or not.

Fueling our increasingly networked and platformed world, like other counting and (ac)counting practices, data are not mere abstraction or representation. They are constitutive, and their generation, analysis and interpretation have consequences (Kitchin, Lauriault, & McArdle, 2015; Van Es & Schäfer, 2017). Data-driven practices and technologies, big or small, cannot be separated from their spatiotemporal locations as they produce, shape and sometimes precede the world (Kitchin & Dodge, 2011). Media enriched environments, ubiquitous computing and information communication technologies undergird and transform the way people use and live in cities, by altering the mediation of social and economic relations (Castells, 2011; Graham, 2004; Wood & Graham, 2006). As city infrastructure becomes increasingly complex and networked, the volume and variety of data produced about them, by them, and through them, has accumulated exponentially (Kitchin & Dodge, 2011; Graham & Shelton, 2013).

The corporate story telling of these (big) data urban initiatives that promise innovative new ways to envision and enact “efficient, sustainable, competitive, productive, open and transparent cities” (Kitchin, 2014a, p.1) has caught the attention of various urban actors.

Centered in a realist epistemology through benchmarking¹⁷, indicators¹⁸ and dashboards, data-fueled indicators offer efficient ways to monitor, manage, control and geosurveil the city (Kitchin, 2013, 2015). While some wait for these aims to be realized, Shelton et al., (2015) contend that current smart initiatives “bear little resemblance to the reality of how urban planning and governance is changing in the era of big data” (p. 15). Rather than continue to speculate or reify these corporate accounts of the smart city, we should look towards “new inter-organizational partnerships and alliances, built around the development and implementation of data-driven governance projects” (Shelton et al., 2015, p. 16). Farías and Widmer (2017), extend this call to further decentre “the smart city” and explore how *ordinary smart cities* are imbedded in the complex urban now. They argue this involves an agnostic account of how smart cities are actually assembled and emphasize how various actors and non-digital logics collide with these “smart” urban projects.

1.5 Research Problem

BIAs have been studied as both granular cases and vehicular ideas travelling on a global scale. However, as they become *malls without walls* (Graham & Marvin, 2001), or *ordinary smart cities* making and remaking our urban environments – more work, beyond detailing their establishment, is needed. BIAs are not stabilized or static entities. As mundane market devices, they shape materials, places and people, and it is imperative that we trace these assemblages and the knowledges, practices and logics that constitute, counter and attempt to stabilize them.

¹⁷ City benchmarking refers to the comparison of urban indicators, within and across cities. Often accompanied by a scoring or ranking system, benchmarking typically attempts to inject policy making with neoliberal rationalities and competitive spirit (Kitchin et al., 2015, pp.9-10).

¹⁸ Borrowing from market practices (e.g., key performance indicators (KPI)), urban indicators are recurrent quantified measures that are recorded over time to provide information about the status and change of a given phenomenon (Kitchin et al., 2015, pp.7-10). Usually a component of a larger scale, indicators are used as a barometer of a city’s development and performance (Kitchin, et al., 2015, pp.7-10).

In response to the aforementioned calls, I trace the mobility and use of geospatial applications and platforms by BIAs in two Canadian cities – Toronto and Vancouver. In this dissertation I unpack how BIAs are using data and technology to render their mandates doable. Specifically, I focus on two cases of BIAs attempting to align their splintering streetscapes through valuation (and other practices) by delegating counting and accounting to applications, so that countable things are made more demonstrable, tellable, accountable and governable. I illustrate how these adopted market devices and associated practices render, (ac)count for, police and govern urban space and populations. This broad mandate gives rise to the following substantive, theoretical and methodological questions.

Substantive Questions

- Who/What is involved in the adoption of BIA data-driven technology and practices?
- How do BIA data-driven governance policies, technologies and practices arise, work and circulate, in BIAs?
- How do these technologies/practices render, account for, and govern urban materials, space and populations?

Theoretical Research Questions

- How can theoretical insights from Actor Network Theory (ANT/ Science and Technology Studies (STS)/ Assemblage theories be combined with theories from urban studies/geography? What do they add? What tensions and congruencies exist?
- What insights can this theoretical toolkit offer in order to produce a radical rethinking of what BIAs are and their role in urban governance?

Methodological Research Questions

- What are appropriate methods that account for the movement and circulation of BIA policing, surveillance and security policies and practices?

1.6 Methods and Cases

Grounded in theories of surveillance, science and technology and urbanization, this project employs the distended case approach in order to *follow* and *trace* the shifting and unstable connections between various actors through the particular sites where BIA policies and practices are circulated, translated and executed. This mixed methods, multi-sited project draws on: 1)

document analysis of BIA-produced materials; 2) attendance at international place management conferences (9), 3) interviewing with BIA executive directors, security experts, smart city representatives, police officers and city officials (35); 4) in-depth work-shadowing of BIA ambassadors and private security (10); and 5) participant observation in the BIAs in Toronto, Ontario and Vancouver, BC (see Figures 5, 6 and 7).

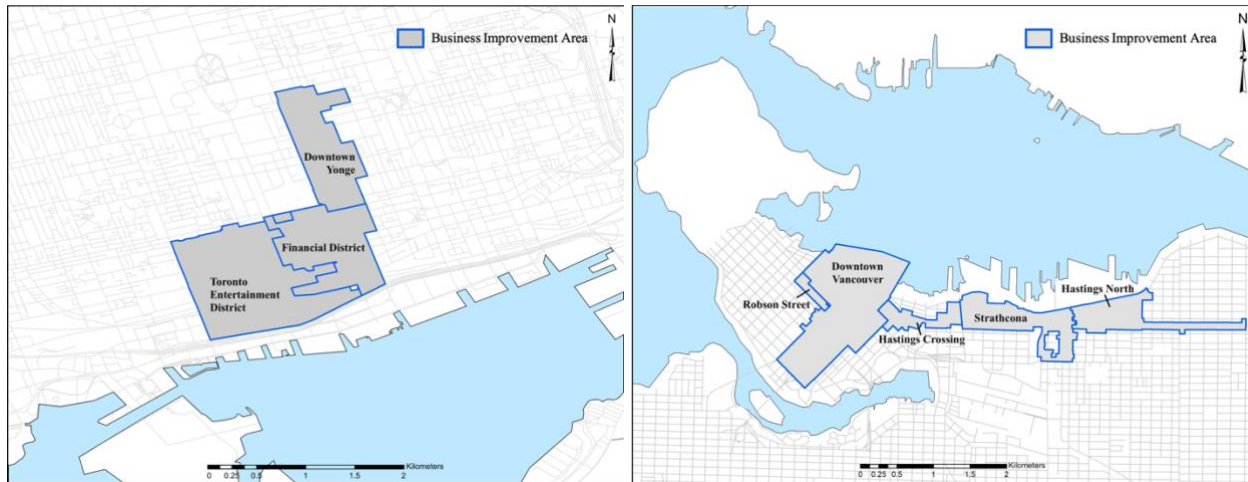


Figure 5. Maps of Toronto (left) and Vancouver (right) BIA Case Sites

The Toronto case traces how three large downtown BIAs (see Figure 5) have adopted and used GeoPal Solutions, a smart city management platform. While primarily adopted for its marketed use-cases (i.e., RFID asset tracking, paperless work order submissions, 311 integration, custom reports, and heat maps), most BIAs have adapted and localized the app. Focused on maintenance and beautification projects in the public realm, Toronto BIAs have used GeoPal for a large scale asset management program. In order to “raise the standard” of their areas, these BIAs have used GeoPal features to further automate reporting and calls for service. Predicated on understandings of assets and value, these BIAs use the app to count and account for the materials, places and people in their areas. By understanding their area in term of its qualities, the BIAs also use the app to promote accountability relationships with those responsible for the maintenance and policing of the public realm.

The Vancouver case follows the use of the VanConnect App, a 311 application for reporting non-emergency city issues to the city. It was originally intended as a citizen sensing app for the “solution economy,” and now BIAs have become its largest user group. In light of large systemic issues in downtown Vancouver, BIAs have directed much of their efforts to clean and safe mandates, which are focused on the maintenance and securitization of their area. To make their mandates more doable by better leveraging City services, these BIAs have integrated the application into existing clean and safe programs in order to track instances of garbage, graffiti, needles and other public realm concerns. However, in combination with other data collection practices, they have used the app to make their problems and work visible to the city.

1.7 Organization of Dissertation

This introductory chapter offers a background discussion of splintering, entrepreneurial urbanism and BIAs. By tracing their emergence as a private sector solution for urban governance, I begin to unpack what they are and what they do. I lay the ground work for challenging normative and ready-made assumptions by engaging in a disassembling/assembling process and outlining key ontological and epistemological foundations. Focused on practices of “improvement” in their mandates, I propose that BIAs are political, economic and social actors who manage and create value. While seen as a mobile and mutable solution for the crisis of governance, BIAs are *not the* solution, nor are they in the business of solving things, they cannot. Instead, BIAs engage in activities of making their mandates, daily work, and organizations more *doable*; and making governance more doable, through practices of making (things) *do*.

Chapter 2 identifies and engages with relevant academic literature, situating discussions of BIAs within larger themes of urban governance, policy mobility, policing and surveillance. This literature review maps the terrain of current research, and guides substantive, theoretical

and methodological elements of the project, drawing connections between the research problem, questions, theory and the empirical chapters.

Chapter 3 details the theoretical orientation of the project, specifically drawing on theories from sociology, science and technology studies (STS), surveillance studies, and urban geography. Rather than offer a summary or history of these ideas, this section attempts to outline the ontological and epistemological foundations of this investigation. Reflecting on and responding to the theoretical foundations of the substantive material and the resulting research questions, I offer an overview of urban assemblage theories. Specifically putting these ideas in conversation, I explain how it can be used as a tool for understanding and unpacking BIAs and their practices. Within this discussion I embed key analytic concepts, specifically (mundane) governance, networks, accountability, and responsibility/responsibilization in order to preface the empiric chapters and the resulting discussion.

Chapter 4 begins with a discussion of the research methodology of tracing, following and arriving – the distended case approach. From there I detail the research design of the project, specifically outlining the multiphase approach, and methods for data collection and analysis. This chapter ends with a reflexive discussion of positionality, and research challenges. As signalled in the preface, thick description and tales from the field (vignettes) are featured throughout the body of the dissertation as narrative framing and accountability devices.

Chapter 5 focuses on the use of an asset management application (GeoPal) in Toronto for public realm maintenance and improvement. Positioned as a tool for navigating and aligning urban fragmentation, I explain how assetization makes their mandate doable by making things (material, places and people) countable. For BIAs, counting and accounting practice enable them to create and maintain value by holding the city to account for the quality of assets, but it also

allows the BIAs to demonstrate accountability, make tellable stories and position themselves as an effective tool for making do (which reinforces market logics/imperatives). I conclude this chapter by teasing out how these organizational accounts become durable, moveable and combinable, as well as aspirational.

Chapter 6 deals with a C2G application (VanConnect) that has been adopted by Vancouver BIAs for service delivery. It is a City tool, being used to align disparate and splintered public realm processes, and I explore how these BIAs engage in valuation and securitization practices. Constrained (yet also enabled) by the app, I focus on how BIAs use this request and reporting tool to make clean and safe mandates more doable. However, due to competing mandates, for the BIAs, the app is only a partial tool, and I explore how this delegating device reinforces geographies of responsibility. Unpacking these intersections of identity, responsibility and relationality, I conclude this chapter by identifying how BIAs supplement the scripted valuation practices of the app.

Chapter 7 draws connections between the various chapters, in order to align them and offer a compelling account. I begin by returning to the mobility and mutations of the BIA model to reflect on broad similarities. While actors focused on creation and management of value, these are not static models; rather, as detailed in Chapter 5 and 6 their practices are granular and uneven. Holding myself accountable to the accounts I have gathered, assembled and arranged, I dwell on some of the important distinctions between these cases. Despite these differences, guided by my central substantive research questions, I focus on the similarities between the cases and draw together points of interest between the two analytical chapters. Specifically, I analyze valuation practices, mundane governance, splintered streetscapes and urban fragmentation. These points of discussion between bodies of literatures highlights key theoretical insigns and

contributions of the project. I conclude this discussion by returning to ideas of expectation and experimentation in the ordinary smart city.

Chapter 8 concludes the dissertation by outlining main findings from the empirical chapters. While partially addressed in Chapter 7, returning to the research questions I explore the substantive/empirical, theoretical, and methodological implications of this work. In addition to preliminary recommendations which are the topic of an on-going collaborative project, I conclude with a discussion of limitations and future work in the area.

Chapter 2

Literature Review

What started as local fix to free-rider problems and suburbanization, Toronto now boasts over 80 BIAs, the largest concentration of any North American city (City of Toronto, 2019b). Promoted by civic leaders, legislators and policy entrepreneurs, BIAs have since become fixtures of the urban landscape in areas of Canada, United States, United Kingdom, New Zealand, Australia, Japan, Netherlands, Germany, Belgium, Norway, and South Africa (Hoyt & Gopal-Agge, 2007, IDA, 2019a). With many controversies surrounding their mass implementation, BIAs have attracted the attention of researchers, predominately interested in the efficacy of changing modes of urban governance in American cities. While a polarizing topic, contemporary literature can be simplistically summarized in terms of: theoretical divisions between entrepreneurialism and increasing privatization, methodological divisions between positivist typologies and urban ethnographies, and practice-based divisions between advocacy and critique. However, recognizing that BIAs cannot be separated from the larger political, economic, or social milieu, or from the granular elements of the cities and areas they are found in, the following section thematically situates and frames existing research on BIAs more broadly amid the parallel processes of neoliberal urban governance, policy mobility, and policing and surveillance. Within each of these thematic, heuristic subsections, 1) broader theoretical debates and concepts are discussed, 2) BIA literature is synthesized, and 3) the most relevant findings are detailed. By situating recent scholarship on BIAs within, alongside and in relation to broader contemporary discussions, this section seeks to map the current terrain of academic thought and guide future research.

2.1 Neoliberal Urban Governance: BIAs as the “Government of Our Time”

Is it possible that someone went to City Hall asking permission to do something and offer to pay for it on their own? Our businessmen did and the cost of all these improvements is added to their business tax bill every year through a special arrangement made with the city. The area now has a bright new name to complement its image, ‘the Bloor West Village.’ It belongs to the residents of Ward One who should enjoy it and patronize the businesses that made it possible. After all, there are other parts of the city that want one like it.

Alderman William Boytchuk describing the world’s first BID, in 1971¹⁹

Considered by some as the “government of our time” (Briffault, 1999), BIAs have been discussed as both responses to and outcomes of urban sprawl and hollowing, the proliferation of commercial environments, the decreasing powers of local governments, and the shift to PPP models (Hoyt & Gopal-Agge, 2007). BIAs understood in terms of broader trends of neoliberalization, urban entrepreneurialism and splintering urbanism, have been conceptualized as PPPs, tools of governance policies, quasi-governmental entities, private governments, and actors in urban governance networks (Morçöl & Wolf, 2010).

In its post-industrial context, the city²⁰ has emerged as a strategic site of neoliberalization – an assemblage or palimpsest of path-dependent and granular interactions, intersecting with inherited regulatory landscapes and emergent market-orientated restructuring projects (Brenner & Theodore, 2002; Sassen, 2004). Through this “upscaling” process, or glocalization, the power of the nation state has been minimized, producing new forms of governance and control at the sub-national level (e.g., regions, cities, and areas) (Brenner, 1998; Smith 1992). For Peck and

¹⁹ (as cited in Hoyt, 2003)

²⁰ Echoing Lefebvrian notions of planetary urbanization, urbanization, cities, and their various components, BIAs are understood as mutually constituted assemblages. Harvey (2014) attempting to answer the urbanization question, argues that “the ‘thing’ we call a ‘city’ is the outcome of a ‘process’ that we call urbanization. But in examining the relationship between processes and things there is a prior epistemological and ontological problem of whether we prioritize the process or the thing, and whether or not it is even possible to separate the process from the things embodied in it” (p. 61).

Tickell (2002), these *extra local rule regimes* undermine local neoliberal projects, while also inducing a “lemming-like rush towards urban entrepreneurialism” (p. 315). As one form of sub- (and supra-) national governance, urban entrepreneurialism refers to the promotion of “new” forms of para- and non-governmental partnerships (Harvey, 1989; Jessop, 1998; Ward, 2006). Exemplified by PPPs, the mixing of state powers with a wide array of organizational and private interests has solidified the commodification of place, heightened competition, and intensified market-based rationalities (Harvey, 2012; Peck, 2014). While by no means a new process – since the provision of public spaces, goods and services either by public or private means has been crucial to the process of urbanization – urban scholars note the increasing speed and scope of entrepreneurial powers (Harvey, 1989; Sassen 2014).

Contemporary cities are caught up in practices of visioning and calculating (e.g., place-making, ranking, and benchmarking) in an attempt to attain competitive advantage, achieve global city status and attract investment (Harvey, 1989; Lapsley et al., 2010). While some iconic city assets project an image, brand and identity, they may also constrain and enable the possibility of managerial and entrepreneurial interventions (Lapsley et al., 2010). With this rush to normalizing *entrepreneurial urbanism*, Harvey (1989) asks, just “how many successful convention centres, sports stadia, Disney-worlds, harbor places and spectacular shopping malls can there be?” [emphasis in original] (Harvey, 1989, p. 12).

For proponents, BIAs offer a flexible alternative to local governments’ inability to provide public services (Brooks, 2007; Mitchell, 2001) and through collective (albeit business) activities have demonstrated success in economically and culturally revitalizing and regenerating areas (Hoyt 2004, 2005a; Stokes 2006; Wolf 2006)²¹. From normative economics and urban

²¹ Using quantitative data and survey methods, there is an abundance of BIA advocacy pieces, predominantly in the American context, that focus on debates of efficiency and revitalization (e.g., Mitchell, 2000, 2003

planning perspectives, BIAs have been studied as popular and progressive forms of municipal corporate governance. Echoing the hype of Boytchuck, much of this traditional body of work focuses on evaluating the government legislated capabilities of BIAs. Furthermore, with accountability mechanisms, specific regulated mandates, corporate governance procedures, and government oversight, Hochleitner (2003) contends that BIAs are responsive, democratic and sufficiently accountable to the “relevant public” – those actually being governed. But what is arguably left out of the many promotional materials (e.g., De Magalhaes, 2012; Mitchell, 1999), are questions of revitalization by what means, for whom, and to what end.

For their critics, BIAs represents a contentious form of privatized local government, which not only augments and replaces existing forms, but also caters to a narrow set of commercial interests by re-routing the delivery of services (Briffault, 1999; Lippert 2010). For Davis (1990), BIAs “ensure a seamless continuum of middle-class work, consumption and recreation” (p. 231). Established in areas with high proportions of existing commercial space (Brooks, 2007; Meltzer, 2011) the formal establishment of BIAs downloads costs to consumers and reinforces the power of commercial interests (Briffault 1999; Barr, 1997). Through revenue assessment and voting structures, BIA members are legally given inequitable representation over residents and marginalized populations (Schaller & Modan 2005; Steel & Symes, 2005)²² Viewed as not only undemocratic (Hoyt 2005b; Hochleitner, 2003), critics further argue that BIAs are autonomous legal entities that obscure governing practices and decrease accountability to residents, the jurisdiction, and even their membership (Briffault 1999; Steel & Symes, 2005). While simultaneously enabling and privatizing forms of regulation and control, entrepreneurial

²² While in a position of power over those they seek to govern Sleiman and Lippert (2010) argues that compared to other urban institutions (private developers, city governments, state agencies), BIAs are far from powerful private actors facing an uncertain future.

initiatives facilitate, create and redevelop cities into literal and metaphorical fortified enclaves – cities within cities (Caldeira, 2000; Davis, 1990; Reeve, 2004). For Graham and Marvin (2001), BIAs reflect the splintering streetscape, a product of the unbundling of infrastructure, bypass strategies which have resulted in the emergence of premium networked spaces. BIAs “amount to the splintering of a carefully selected system of traditional streets from the wider metropolitan fabric” (Graham & Marvin, 2001, p. 261). Legitimized through law and regimes of private property, these city-based geo-politics of exclusion, script and enact citizenship and desirability, through the spatial regulation of the city (Schaller & Modan, 2005).

While “governance”²³ has primarily been debated in the American context, those studying Canadian cities and provincial regions have either focused on traditional typologies and patterns of adoption, the potential of revitalization through the BIA model, or BIA’s power in the production of urban knowledge, and outcome of governance projects. Isakov’s exploratory survey of BIAs in BC catalogues and analyzes BIA structures, mandates, services, and accountability practices, in order to examine differential adoption practices amongst BC BIAs. Like other studies, Isakov (2009) highlights the need to understand BIA governance as both a contextually situated entity as well as a larger governance movement. Schaal’s (2011) Vancouver based research compares perceptions of social issues between BIAs within the City, with those in the suburbs of Metro Vancouver. While all BIAs articulated similar understandings of urban issues (primarily concerned with homelessness and crime), Schaal (2011) notes that those within the downtown core were more interested in or capable of providing social services.

²³ Perhaps a simplistic generalization, I would argue that a specific American democratic legacy combined with an economic lens has resulted in a limited, yet political understanding of governance caught up in questions of formation, constitutional law, and order. As noted in the introduction and repeated in in Chapter 3, in this dissertation I take a much broader understanding of governance, which blurs boundaries between “governance” and policing etc., (see section 2.3); however, for the sake of this literature review, in order to engage with this scholarship, these distinctions have been maintained.

Like broader discussions of privatized governance, these Vancouver studies highlight patterns and practices of entrepreneurialism and managerialism.

Through these practices and processes of governance, Lippert and others have focused on the role BIAs play in the production of urban knowledge. For example, while Ambassador programs primarily are normatively seen as promoting hospitality and physical security (see section 2.3), Lippert and Sleiman (2012), note that these BIA ventures also serve to (re)produce understandings of the area and the city. These understandings not only justify downtown consumption, membership, and larger governance structures, but also serve to solidify their own existence (Lippert & Sleiman, 2012). As mundane, spatial, dissociated technologies of governance, Lippert (2010) notes the multiplicity of powers and devices which are needed to be aligned, in order to shape and “revitalize”. In examining the role of BIAs in the regeneration of entertainment zones in Vancouver (Granville Street) and Toronto (John Street), Darchen (2013) analyzes local government arrangements and the impact on placemaking and economic revitalization. Darchen (2013) recommends that beyond the imposition of the BIA model, greater sustainability assessment is needed in order to produce a more strategic approach to revitalization.

2.2 Policy Mobility: BIAs on the Move

Originally a controversial means of “saving” Toronto’s Bloor West Village after the expansion of suburban malls and a subway line, the Canadian origins of BIAs have often been forgotten (e.g., Graham & Marvin, 2001; Valverde, 2012,.) as related policies and practices have circulated between US and UK actors. With the increasing popularity of these urban technologies, BIAs have become an entrenched, mundane and taken-for-granted feature of the urban landscape

(Lippert, 2010). Commensurate with discussions of governance and policing, BIAs have been theorized as vehicular ideas, prone to policy mobility, circulation and mutation.

Policy transfer is a broad term used to refer to the practice of learning from and sharing practices with other jurisdictions. Primarily used in political science, recent critiques have suggested policy mobility better reflects the ontological nature of knowledge circulation; however, other terms used to describe similar processes include policy diffusion, policy emulation, policy convergence, policy tourism, and trans-urban policy pipelines (Cook & Ward, 2012; McCann & Ward, 2012). When responding to the current speed and composition of policy making as well as to orthodox discussions of policy transfers, critical mobilities and mobile urbanism scholars (e.g., McCann & Ward, 2011; Peck & Theodore, 2012; Söderderström et al., 2013) foreground the how, why and who of these emergent processes.²⁴ By moving away from normative and static definitions (e.g., benchmarking and best-practices), policy mobility refers to the translation, circulation and transportation of ideas and models among localities in ways that influence local politics and policy-making, both on the supply side and on the demand side (Temenos & McCann, 2012).

More than just accounting for movement, mobility carries a particular meaning – the ideological imperative of mobility found throughout neoliberal discourses, and particular conceptions of economic or symbolic power (Cresswell, 2006). This understanding of movement helps to realize reorganized policy networks, constructed around reoriented means and ends – in the sense that they move institutions and groups of people to act in specific ways (Peck & Theodore, 2012; Temenos & McCann, 2012). Referred to as policy assemblages, networks,

²⁴ Critical mobility studies seek to move beyond the metaphysics of presence and fixity (Cresswell, 2006). Arguing that much social science theorizing is sedentarist (Cresswell, 2006) or a-mobile (Urry, 2007) this work promotes a mobile sociology capable of producing an epistemological and ontological change; thereby demanding new and/or appropriate research methods (Sheller & Urry, 2006; Watts & Urry, 2008).

circuits or trans-urban policy pipelines; these interlocking relations of informational infrastructures, the experts, and various face-to-face communications are also mobile (Cook & Ward, 2012). Cook and Ward (2012) note the increasing role of face-to-face communications and conferences in the trans-urban policy pipeline. Conferences, *made to move* (participants), are “transitory assemblages of various elements – institutions, presentations, websites – that are assembled and re-assembled and are held together temporarily only then later to be broken up and/or reconfigured” (Cook & Ward, 2012, p. 139).

On a global scale, BIAs increasingly share operating strategies, and organizational cultures (Hoyt & Gopal-Agge, 2007). These power-laden processes serve to connect and constitute actors, organizations, and places (McCann & Ward, 2011). As vehicular ideas, or travelling concepts, these policies “function as facilitative frames, working around blockages, disarming opponents, enabling new projects to move forward” (Peck, 2012, p. 240). Rather than rigid templates, urban policies are made to be mobile and often formulated with enough ambiguity to easily circulate between locations (McLennan, 2004) or translocal fields of power (Ong, 1999). In the process of circulation, this mutability of policies, enables interpretation and re-interpretation between various actors and contexts (Cochrane & Ward, 2012; Ward, 2011). For Robinson (2013), “Urban policy mobilities constitute cities and their futures – it is in the context of circulating policies that city managers, citizens and other actors frame their imagination about where cities are going and make city futures” (p. 2). In other words, while these dominant urban models circulate through global, national, and provincial knowledge economies, they are enacted in local, granular and uneven ways. In doing so, the ontology of what a BIA is, as well as any inherent controlling capacity, is called into question.

Research on BIA policy mobility, as a particular urban policy, highlights adoption and legitimization practices, local embeddedness, and the contextual translation of ideas. As with much of the literature, the majority of research in this parallel subtheme focuses on the US, UK, Europe and increasingly the global south. Cook's (2008) foundational work on US to UK policy transfers demonstrated how policies in the US. were constructed and marketed as successful and *transferable* solutions to urban fiscal imbalances in England and Wales. Similar to aforementioned urban governance discussions, the ability of actors to translate and transfer these ideas was contingent upon participation, levels of disclosure and discourses of legitimization (Cook, 2008). Not only were sites made amenable to policy application, but before export, the BIA model was re-shaped – simplified and strategically repackaged (Cook, 2008). Ward (2007) highlighting the movement of neoliberal governance, contends in the process of these policy transfers, local governments were re-made in the image of neoliberalism. A well-cited call to action, Ward (2011) argues that more research is needed into the mechanisms through which neoliberalism is made in different sites. Responding to this call, Peyroux, Pütz and Glaszes' (2012) collective volume explored international BIA policy circuits, and expanded debates on the international translation of ideas, and the false separations between North and South.

While policy mobility is primarily discussed in terms of BIA establishment, some scholars have focused on how specific policies and strategies are transferred between organizations and BIAs. In Canada, these discussions have primarily focused on CCTV adoption. Walby & Hier (2013) explore the varying involvement of BIAs in the implementation of CCTV in Canadian cities (i.e., Williams Lake, Winnipeg, Peterborough, and Orillia). Troubling simplified understandings of neoliberalization and privatization, their study demonstrates differing levels of promotion, as well as reluctance among BIAs regarding CCTV

and privacy protection guidelines. Walby and Hier (2013) note that this reluctance may be due to the size and capacity of BIAs, and the local and regional policy contexts they are embedded in. As part of the same project, Mahon (2014) examines policy learning and tourism in six Ontario cities using Civil Remedies and Proceeds of Crime grants to instate CCTV. While BIAs are not the main object of study, Mahon identifies their role in regional networks and as advocates and recipients of policy tourism. Like other discussions of policy mobility, Mahon's analysis of the grant system finds similarities between policies, but emphasises idiosyncrasies in interpretation, adoption and resulting weak privacy protections.

In exploring themes that cut across these heuristic subsections, concepts of transfer and mobility are bound up with other logics of governance and policing. For example, rather than assume how these practices and people move, or a priori theorize how these elements will arrive at a site, Lippert (2007) combines governmentality and Latourian analysis to understand the introduction of broken windows theory, knowledge transfer, and the movement of urban revitalization consultants. Building on this, Lippert (2012) develops a sociology of governance perspective, in order to theorize BIAs officials as knowledge brokers of clean and safe security between public police, BIDs, and municipalities. By tempering discussions of neoliberalism in policy transfer literature, Lippert (2007) argues that clean and safe rationalities are a more useful means of understanding on the ground governance, modes of intervention, and the securing of BIAs, as this model spreads and embeds itself in cities on a global scale.

2.3 Privately Policing the Urban: BIAs, Broken Windows and Banishment

Reflecting the aforementioned "shift" in governance, citizenry has been responsabilized to police (Hermer, et al., 2005). A process of deresponsibilization (Coaffee, et al., 2009; Hunt, 2003), a responsabilization strategy (Garland, 1996) or government at a distance (Rose, 2000),

governments act upon crime in indirect manners by activating action in non-state agencies and organizations. Often established in consultation with other BIAs, local law enforcement and security experts, BIAs have increasingly added crime control²⁵ policies and practices to their organizational mandates. While primarily concerned with varying levels of broken windows policing – the promotion of beautification projects, street cleaning, façade regeneration and graffiti removal – some BIAs have also opted for CCTV and private security personnel. Attempting to maintaining safety and security in these areas, BIAs have become integral actors “responsible” for privately policing cities.

In response to changing police practices, the term policing, typically used to discuss the work of public policing, has taken on broader meanings. Building on Foucauldian governmentality studies and the new policing science (e.g., Dubber & Valverde, 2006; Foucault, 2007), policing is hereon understood as “any activity that is expressly designed and intended to establish and maintain (or enforce) a defined order within a community” (Hermer et al., 2005, p. 23). An urbanizing force (Foucault, 2007), policing brings together various interests, communities and conceptions of order. As Lippert and Walby (2013) note, these are neither wholly public or wholly private endeavours, instead policing is a “varied set of practices enlisting an array of technologies, practices, spaces, and persons to accomplish numerous order maintenance objectives” (p. 1).

Private policing across North America has rapidly expanded over the past three decades (Cunningham, Strauchs, & Van Meter, 1990). In Canada, the growth of private security has

²⁵ Crime control refers to methods taken to reduce crimes in a society. Imbued with understandings of general and specific deterrence, the crime control mandate has become synonymous with understandings of crime prevention. I concede that critical criminology (Box, 1983; Scraton, 1979) has long debunked the manufactured dichotomy of “due process versus crime control”, by arguing that due process is always in the service of crime control and that discourses of balance serve to justify and obscure the purposes of the crime control mandate. However, given the pervasive use of this term in policy and business vernacular, it has been included as a concept.

consistently outpaced public forces three to one (Easton & Furness, 2012; Rigakos & Greener, 2002). This expansion has further blurred the distinction between public police and private security. These *leaky containers* (Lyon, 2001) of public and private security infrastructures are increasingly coming into contact. Although privatization characterizes the shift in the nature of policing, it is a simultaneously limiting concept, as the broader tasks of policing are increasingly performed by a network of private and public police (Cooley, 2005; Law Commission of Canada, 2006). Normatively, discussed as a nodal governance, Johnston and Shearing (2003) argue that while this multiscale and context-based approach may advance democratic outcomes, it may also reproduce power inequalities. The production of security is an inherently plural and unstable process comprised of internal and environmental forces (Dupont, 2014). This security regime – not only sharing many institutional, technological and practical characteristics (Kempa, 2011) – also shares in the production and exchange of data and information. Boyle argues that “these diffuse alliances seek to insinuate themselves within state and non-state networks, by monopolizing capital, or context specific resources” (Boyle, 2011, p. 176).

Foundational studies (e.g., Barr, 1997; Beckett & Herbert, 2009; Davis 1990) have noted the increasing reach and power of BIA security services. Under the auspices of safer neighbourhoods and lower crime rates, private security, guards and outreach teams have been tasked by BIAs to patrol their areas. Long common practice in New York City, Los Angeles, Portland, Las Vegas, and Cincinnati; increasingly, municipalities are also employing these policing strategies and exclusionary practices. While often (cost) effective at lowering property and violent crime (Hoyt, 2004, 2005c), others note the harms these crime control initiatives have on marginalized populations (Barr, 1997; Beckett & Herbert, 2009; Schalder & Moden 2005). As spaces of consumption or “malls without walls,” these initiatives solidify commercial

placemaking and boundary setting (Clough & Vanderbeck, 2006; Graham & Marvin, 2001). Termed by Caldeira (2000) as fortified enclaves and fragments, through zoning codes, policing practices and regimes of private property, subnational levels are bestowed with the powers to construct and regulate space²⁶ (see Carr, Brown & Herbert, 2009; Crilley, 1993; Valverde, 2012). Consequently, the rights of individuals are often trampled over in the interests of business development. The consuming gentrified citizen is solidified as the legitimate and welcome patron, while signs of peripheral cultures and disadvantaged populations are erased (Harcourt, 1998). More recently, a Berkley Law study²⁷ updated and reinforced these findings, suggesting that BIAs through policy advocacy and policing serve to exclude populations experiencing homelessness.

In Canada, those studying urban private policing and BIAs have identified similar trends in the adoption and the implications of these practices. Huey, Ericson and Haggerty (2005) detail the creation and proliferation of urban entertainment destinations in downtown Vancouver. Their study, focused on spaces of consumption and pleasure, highlights the role of the DV BIA in the delivery of urban policing services directed towards “blight” removal (e.g., panhandling, graffiti, squeegee kids, street youth, etc.). Recognizing these areas as spaces of contention, they expand on the concept of the *fantasy city* (Hannigan, 1998) to conceptualize forms of policing and identity in these modern marketplaces. Mopas (2005), conducting a similar study in downtown Vancouver identifies how community-based policing approaches reinforce politics of space and citizenship. While areas may be in need of increased security, Huey (2012) contends that the criminalization of homelessness serves to increase the security gap. These early discussions of

²⁶This constructive process is often discussed in terms of the closure, end, or destruction of public space. In doing so, public space is cast in opposition to private space.

²⁷ (see Selbin et al., 2018).

BIAs and policing, by calling into question the production of community and order in these spaces, remain relevant.

To examine who is policed and how, others have extended these discussions of BIAs and policing. For example, studying CCTV programs (2012a), bylaws (2007; 2010), and ambassadors (2012), Lippert (in collaboration with others) has developed a nuanced critique of urban neoliberalism. Using governmentality studies, Lippert suggests that *clean and safe passage* better explains the particular logics behind the (re)production of consumption-orientated spaces. A form of moral entrepreneurialism, these security initiatives target particular groups (e.g., people experiencing homelessness) as well as particular businesses (e.g., adult entertainment establishments, discount stores, coffee bars, etc.) (Lippert, 2007). Removing these “obstacles” to pedestrian flow and consumption conduct, BIAs proliferate *clean and safe rationalities* (Lippert, 2012). These rationalities are embodied, performed and furthered by BIA ambassadors in Canadian downtown cores (Lippert & Sleiman, 2012; Sleiman & Lippert, 2010). Unlike CCTV surveillance, that is used to watch from a distance, ambassadors, as eyes and ears on the street, produce different forms of knowledge, surveillance, and means of navigating the city – ambassadors re-make downtowns in terms of consumption (Lippert & Sleiman, 2012). However, the production of these consumptive spaces is not reducible to a physical security function. Instead, the security and knowledge created and brokered by BIAs is emblematic of their particular precarious and contingent relationship with other organizations. For Lippert and Sleiman (2012),

If governing requires knowledge of that which is governed, then consistent with ‘clean and safe’, ambassador knowledge focuses primarily on directly discerning and shaping consumers’ impressions of downtown, indirectly persuading other institutions with greater or specialised resources to push these impressions in desired directions and showing the effectiveness of BID operations (p. 74).

While this knowledge may not always directly promote consumption, they argue that it serves to promote and couple the governance of public space and BIA efficiency (Lippert & Sleiman, 2012). Bookman and Woolford (2013), theorizing similar shaping and governing practices, offer a critical discussion of brandscapes in Winnipeg's Exchange District Business Improvement Zone (EDBIZ). Specifically, they explore how BIZ beautification and security projects, as well as environmental design, are used to maintain a stable and safe image. Similar to Murakami Wood and Ball's (2013) discussion of *brandscapes of control* or *securityscapes*, the brand itself becomes a source of policing (Bookman & Woolford, 2013). By ordering space and evoking a regulatory ideal, the BIA brand subsumes local cultural, spatial, social, economic and political practices, to shape and co-produce urban renewal (Bookman & Woolford, 2013).

Building on existing work on parapolicing and nightscapes, Rigakos (2015), argues that BIAs are a form of urban pacification which serve to commercially colonize cities. Based on ethnographic surveys with BIAs and merchants in downtown Toronto, Rigakos critiques their role as planners, lobbyists, and general actors in the fabrication of social order. For Rigakos (2015), BIAs pacify through relations of exclusivity, political alignment with police, purposeful forgetting, and conflation of "business" with "public" interests. These practices serve to solidify spatial boundaries in the city and legitimize the expansion of policing services (Rigakos, 2015). Connected to large-scale pacification projects, these urban developments order and orientate populations in terms of capital accumulation.

2.4 Conclusion: Mapping the Terrain and Routes

While some of the aforementioned discussions attempt to draw connections between these themes, there remains a paucity of literature that addresses BIAs as strategic and vibrant sites of governance, policy mobility, policing and emerging (data) surveillance practices. In this

dissertation I respond to calls from the above authors to provide insight and updates into the Canadian context of BIAs, policing and urban surveillance, as well as to further theoretical and empirical understandings in sociology, urban studies and STS.

From a normative economics and urban development/planning perspective, BIAs have been studied as a popular and “progressive” form of municipal urban governance. While the majority of work in this subtheme has been based in debates of efficiency and revitalization, there is a growing body of work exploring the more granular aspects of BIAs and urban governance (e.g., Lippert 2012; Lippert & Sleiman, 2012). In particular, Lippert (2012) argues that a Foucauldian inspired sociology of governance is a promising lens for further studies of BIAs, as it reveals the “rationalities, knowledge, modes of intervention, and the agents that BIAs deploy, enlist, or operate through”; moreover, it is able to account for country-specific complexities, as these policies and practices spread and embed (p. 178). While a Foucauldian perspective maps well on to discussions of BIAs rather than duplicating this established body of work, I adopt an STS approach to urban studies in order to unpack the normalized claims of accountability. This offers a productive and underutilized lens to explore particular forms of neoliberal, entrepreneurial and managerial governance (or not) on the ground.

From a critical mobilities and urban studies perspective, BIAs have been studied as traveling policies on a global scale, but as they become *malls without walls* that make up our urban environments, more work beyond understanding their *initial* mobility and mutation is needed. As stressed by Robinson (2013), “we need to develop a spatial vocabulary more adequate to capturing the spatialities of circulation” (in Ward & McCann, 2011 p. 23). Building on ideas of *actually existing neoliberalism* (Peck & Theodore, 2010) and the *actually existing smart city* (Shelton et. al., 2015), rather than stabilize previous accounts of mobility, I explore the

emergence of policy discourses, trace policy networks, and engage in an ethnography of state/para-state/non-state policy making processes. Specifically, I draw on ideas of performativity, making, and assemblage – or “how actors pick through documents or discourses to create novel assemblages for domain-specific purposes” (Lippert, 2007, p. 33) – in order to trace accounts of BIA assemblages.

The role of BIAs in urban policing has been established in the Canadian context. By exploring various aspects of policing, current discussions centre on the creation of clean and safe rationalities, and the production of spaces for consumption. While fruitful in assessing the mundane ways in which BIAs police via rationalities or brands, the relationship between the various actors making these practices and processes remains under analyzed – especially in terms of surveillance, policing and security. For instance, the majority of security regimes and knowledge networks scholarship has focused on the policing of mega-events, Boyle (2011) stresses the role of these major events as “catalysts for lasting security governance legacies” (p. 179). This research project adds to this discussion of legacy, by exploring the more day-to-day mundane means and paths through which similar practices and policies are adopted and circulate.

Chapter 3

Assembling Theories of Framing

If these new urban assemblages are to be understood, it is crucial not only to document their technical and human elements but also to consider why they are emerging and how they are being represented and normalized. More broadly they show a need for greater exchange of concepts between surveillance studies and urban studies as there is plainly growing overlap between the traditional subject matters of these two literatures (Lippert & Murakami Wood, 2012, p. 261).

In order to relate my empirical study to broader analytical insights, I engage with theories from STS, surveillance studies, and urban studies/geography. Key points of agreement in these fields are *skepticism*, *reflexivity*, *fluidity*, and *performativity*. These predominately congruent orientations offer a conceptual vocabulary as well as analytic insight into the aforementioned research areas. However, rather than craft a tidy theoretical frame,²⁸ which obscures social action or holds literature, theory, and academic discussion as constant, I conceive of this work as a dynamic, iterative and citational performance of others (Rose, 1999). As such, the following ideas serve as ways of doing, seeing and understanding, which shape and direct this account of tracing and following.

The following section begins with an overarching discussion of ANT and assemblage theory. Building on the notion of collectives as consisting of hybrid assemblages between human and nonhuman actors (Latour, 2005), and as a relational manifold that is contingent, fluid, rhizomatic, relational, productive and dynamic (DeLanda 2006, Callon 2000), the subsequent sections explore a means of thinking through, the urban, surveillance, governance and markets,

²⁸ Some might contend that a Foucauldian framing would have made for a more compelling and straightforwardly ontologically congruent account. For instance, between biopower, biopolitics, conduct, governmentality, government at distance, permanent critique of government, security, territory, the *dispositif*, and a host of other concepts, this dissertation arguably could have tried to extend neo-Foucauldian analysis. However, as Murakami Wood (2007) notes between methodological advances and dismissal of moral assumptions, ANT remains a critical ground for post-Foucauldian studies of surveillance, as well as technology.

to examine their application in relation to this project. Noting the productive frictions between some of these ideas and the multiple ontologies at play, section 3.5 serves as a foray into *empirical philosophy* (Mol, 2002). While the controversy surrounding some of this theorizing has dissipated; rather than resolve to complexity, I dwell on complications and (in)congruences in order to explore the ontological and epistemological underpinnings and tensions that remain between and within these frames and their implications.

3.1 Actor Network Theory and Assemblage: Translation and Association

With the growing acceptance and discussion of complexity, indeterminacy, and becoming, a body of theoretical work has emerged around processes of flow and the (in)stability of social phenomena (Venn, 2006). Borrowing heavily from the natural sciences, these discussions attempt to better account for “change, resistance, agency, and contingency” (Venn, 2006, p. 107). In particular, assemblage and ANT, alongside discussions of new materialism, have become popular ways of thinking about ontogeny, phylogeny, and heterogeneity. While not interchangeable, given the varying levels and ontologies these ideas are operating on, they nonetheless both serve to generate puzzles about process and association, rather than reproducing discussions of classical social theory (Marcus & Saka, 2006).²⁹

Developed by Latour, Callon, Law and others, as an approach for exploring technoscience – the history and contemporary interplay of action and scientific practice – ANT has since become a popular means of understanding the nature of groups, actions, objects, facts,

²⁹ “Indeed, one might argue that once relaxed in terms of the heightened tension it promotes, assemblage becomes something more sober like actor-network theory. The latter is a conceptual apparatus somewhat more domesticated to classic theory, and thus easier to map, describe and hold stable. For the sake of mapping a time-space and stabilizing its dynamics for modeling, so to speak, it relaxes precisely those dimensions of modernist perceived realities that the use of the concept of assemblage retains” (Marcus & Saka, 2006, p. 102). Recognizing these similarities, as well as the way these theories have been conflated or combined by scholars, this research seeks to employ, work through tensions, and build on these ideas in order to theorize about cities, business improvement areas, and their practices (surveillance or otherwise).

and empirics (Latour, 2005). Instead of trying to hold a stable frame,³⁰ ANT focuses on the uncertainty, disruption, and dislocation of movement (Latour, 2005). In other words, rather than structure, theorize, or frame ontological understandings Latour (2005) recommends studying in the negative in order to interrogate uncertainties (e.g., the nature of groups, actions, object, facts and empirics). Focused on relational materiality, human and nonhuman actors, mediators or objects are understood in relation to each other (Law, 1999). These relationships, or associations, between humans and nonhumans *form* networks (Latour, 2005; Law & Urry, 2004). Specifically, through aligning, shaping, translating and stabilizing interests and objects, actors create associations and build networks (Callon, 1986; Callon & Law, 1989). Extending the work of Callon, Simakova and Neyland (2008) use the terms *constituents*, *constituency*, and *constituencies* – respectively referring to the individual, groups, and grouped-groups of human and nonhuman actors – to detail the ongoing alignment and creation of compelling accounts which attempt to stabilize networks.

However, in this practice of assembling, actors (and analogous terms) are not the source of action. Action is dislocated and distributed, and actors (or actants) are things “made to act” (Latour, 2005). Rather than arriving at research through a pre-determined understanding of *the social* (or assumptions about its composition), proponents of ANT posit that the social is not a thing, but a type of relation between things that are not social themselves (Latour, 2005). In other words, the social cannot be understood a priori, as to do so, “assumes that the social accounts for

³⁰ A stable frame, (which arguably is the task at hand for a “theory chapter”). And in many cases scholars have attempted to “use” ANT in a similar way. Often cast as a trendy theory, or methodology, Latour (2005) cheekily recounts a conversation with a PhD student at the London School of Economics wanting to use ANT as a framework. Through a dialogue he critiques the application of theories and frameworks. Sample of discussion: “[Latour] And you want to apply ANT to these people! After you have reduced them from actors to placeholders, you want to add insult to injury and generously bring to those poor blokes the reflexivity they had before and that you have taken away by treating them in a structuralist way! Magnificent! They were actors before you came in with your ‘explanation’. Don’t tell me that it’s your study that might make them so. Great job, Student! Bourdieu could not have done better” (pp. 154-155).

associations;” rather, it is the “associations [that] explain the social” (Latour, 2005, p. 238). Instead of offering a general theory of the social, or structural concepts, ANT’s strong commitment to the empiric provides a theory or methodology for how to conduct research and elaborate concepts – “follow the actors, forget the contexts, describe, don’t explain, and do not switch conceptual repertoires when you describe” (Fariás, 2011, p. 367, Latour, 2005). Given the importance of conceptual language in *accounting* for (Neyland, 2006; Kenny 2015) and mobilizing the empirical, in Chapters 5 and 6, I explore the accounting, assembling, aligning and articulation of BIAs. Through these cases studies and gathered accounts, I trace how BIA practices and policies are prescribed, negotiated, stabilized, aligned, translated, and potentially co-opted and black-boxed. Specifically, by following the inquiries of actors, I contend their conceptual repertoires offer a radical re-thinking of what BIAs are, and what do they do. That is not to say previous accounts or theorizing is irrelevant, far from that, ANT simply contends these accounts of the social are not “the” entry point.³¹

Despite the mainstreaming of ANT in the field of STS, its more recent inclusion in urban theory was deemed controversial³² and became a large source of debate³³ – although a large

³¹ To revive the “social” and its place in the “sciences,” ANT refutes the social as a stable, static, and given entity. “If sociology has been marked from the start by the discovery that action was overtaken by other agencies, it has been spurred even more forcefully by the ethical, political, and empirical discovery that there exist hierarchies, asymmetries and inequalities; that the social world is just as differentiated a landscape as a rugged and mountainous terrain; that no amount of enthusiasm, free will, or ingenuity can make those asymmetries go away; that they all seem to weigh as heavily as the pyramids, which hampers individual action and explains why society should be considered as a specific sui genesis entity; that any thinker who denies those inequalities and differences is either gullible or somewhat reactionary; and finally, that ignoring social asymmetry is as ridiculous as claiming that Newtonian gravitation does not exist” (Latour, 2005, p. 63). Furthermore, by rejecting this 0,0 co-ordinate origin point ANT changes the ontological journey and summit. The social cannot be understood a priori, as to do so, “assumes that the social accounts for associations;” rather, it is the “associations [that] explain the social” (Latour, 2005, p. 238).

³² Conceived of as a “fashionable contextualist turn,” (post) Marxist human geographers and political economists have challenged this “radical ontology,” arguing the rejection of macro-structuralist conceptions in favour of accessing tracing and following “micro-social contours” (though place-based narrative and thick description) does little to address contemporary contradictions (Brenner, 2014, p. 187).

³³ This has resulted in numerous recent debates. See discussions in *City, Dialogues in Human Geography*, (e.g., Acuto, 2011; Anderson et al, 2012; Brenner, Madden, & Wachsmuth, 2011; Fariás, 2011; McFarlane, 2011a; McFarlane, 2011b; Wachsmuth, Madden, & Brenner, 2011)

amount of this is due misunderstandings over flatness, fluidity, scale, structuralism, and the complexity of urban processes and the role of nonhuman agents.³⁴ However, as Farías and Blok (2016) note, a lot of the controversy surrounding ANT, especially with regard to urban assemblages and assemblage urbanism, has dissipated. While much work has been done to undo substantivist understandings of cities, keeping ANT and related theories, in conversation with, and at times in necessary opposition to other ideas, highlights mess, multiplicity and other conceptual repertoires.

3.2 Urban Assemblages: Ontologies of the City

... It is difficult to imagine what would count as a more critical perspective than one that suggests that urban phenomena are objective because they are constructed, and insists that the larger and more complex the assemblages they involve are, the more objective (cf. Latour, 2003), or that not just urban subjects perform and group themselves situationally, but also urban objects, natures, built environments and bodies are enacted in fluid multiple ways depending on the socio-technical networks and sets of practices they are involved in (cf. Mol, 2002), or that urban studies do not just deliver better or worse theories, descriptions or analyses of city life, but are actively involved in the performative production of the city (cf. Callon, 1998). (Farías, 2011, p. 366)

No longer limited to discussions of technoscience, ANT, new materialism, non-representational and assemblage theories have been positioned as a means of escaping the “urban impasse” (Thrift, 1993) by offering a different ontology for understanding the urban through complexity, indeterminacy, emergency and turbulence (Anderson, Kearnes & McFarlane, 2012; McFarlane, 2011). While influenced by veins of urban theorizing (e.g., Graham & Marvin, 2001; Amin & Thrift, 2002), urban assemblage theorists distance themselves from existing ecological, economic, and cultural approaches, suggesting that these synecdoches of the city (Amin &

³⁴ Like others, I argue that these contemporary debates, as well as their resolutions, are indicative of longstanding trends in critical geography and Marxian scholarship more generally. Presaged by Institutional Marxism in the 1970s, and the later cultural turn in economic geography, ANT is in many ways similar to the emphasis placed on interconnection and spatial formation of markets, relational understandings of space, or focus on infrastructures.

Thrift, 1997) rely on reified meta-narratives of structural change and singular conceptions of cities in order to understand urban life (Farías, 2010). Rather than defining objects and sites according to spatial boundaries and scales, this growing body of work begins with an understanding of cities as multiple hybrid assemblages of human and nonhuman associations (Farías, 2010).

*Urban assemblages*³⁵ have been proposed as a means of challenging structural meta-narratives of urban life, by offering a radical, relational, rethinking of ontology as flat, fluid and symmetrical (Farías, 2010). With no singular agreed upon history or definition, “urban assemblage”³⁶ has been employed as a concept, an imaginary, an analytic tool, a descriptive lens and an orientation within the field of urban studies (McFarlane, 2011). As a concept, urban assemblage refers to “the processes of construction by which cities, urban phenomena and urban life are constituted” (Farías, 2011, p. 369). It offers a concrete, tangible image of how the city is brought into being and co-constituted by heterogeneous actors, materials and relations (Farías, 2010; McCann & Ward, 2011). The utility of assemblages “is that it describes an entity that has both consistency and fuzzy borders ... [it] has some coherence in what it says and what it does, but it continually dissolves and morphs into something new” (Tampio, 2009, p. 394).

Farías (2011) argues that with this constructivism,³⁷ instability and contingency, rather than an epistemological problem, offers an ontological proposition. By imploding and decentring the object of study, the city, is unbound from its delimited site and its ontological

³⁵ While basing the concept of urban assemblages in ANT, Farías and Bender tone necessary similarities to Deleuze and Guattari (1987/1980), Callon (1998) and DeLanda (2006)’s use of the term agencements, and especially the role of exteriority. Rather than thinking in parts and whole, elements are emergent and in a process of becoming (Farías, 2010).

³⁶ I note the way I use this term problematically in the singular, however, throughout this section it is used as a shorthand to reference a group of theories, concepts and theorists discussing urban assemblages.

³⁷ The city is not socially constructed but enacted into being. As Latour (2005) argues ‘construction’ suggests a powerful creator, whose work deprives the role of actors and material interactions.

status can be further unpacked (Farías, 2010). Rather than simply a theory or method, as an orientation, urban assemblage offers a rich analytic tool for understanding and tracing accounts, networks, spaces and practices (Farías, 2010). Farías (2011), warns that what

... we need to keep in mind is how through each of these objects, processes and phenomena in the city and urban life are literally being reconstructed and remade, how urban materials, technologies and different urban life forms are composed and hold together in practice (p. 368).

This account of space and time foregrounds particular sites where actors shape space-time dynamics, producing different geographies of association (Farías, 2010). The city is here, there, now, never duplicated, and forever unfinished (Bender, 2007; Kitchin & Dodge, 2011). Similar to Massey's (1994) and Murdoch's (1988) accounts of relationality, space and time are multiply enacted and assembled at particular sites, where actors shape space-time dynamics producing different geographies of association (Farías, 2010). This process of ontogenesis is never duplicated, as it is not ontologically secure, fixed, defined or determined (Kitchin & Dodge, 2011). In other words, space is inconsistently transduced³⁸ and emerges through contextual, relational and contingent practice (Kitchin & Dodge, 2011; Rose 1999).

Furthermore, working with the ontological propositions of urban assemblages offers a means of thinking through spatial formations (Farías, 2011) – how are they are produced, performed, held together, defended, maintained and repaired? ANT (beyond initial Latourian articulations) offers a useful heuristic for conceptualizing how spatial relations come to be intertwined in complex networks (Murdoch, 1998). By recognizing how the city is relentlessly being (re)assembled at “concrete” sites of urban practice, the city as a *multiple object* (Mol,

³⁸ Drawing on the work of Simondon, Deleuze, Butler, and ANT, Mackenzie reformulates the concept of transduction to theorize technical mediations as radically contingent. “Transductive processes occur at the interface between technical and non-technical, human and non-human, living and non-living” (Mackenzie, 2007, p. 52). “Transduction is a process of ontogenesis, the making anew of a domain in reiterative and transformative individuations – it is the process by which things transfer from one state to another” (Kitchin & Dodge, 2011 p. 72).

2002) poses a challenge for urban research, since identifying and analyzing these multiple enactments requires a cogent understanding of how they are articulated, presented and concealed (Farías, 2010; Law & Singleton, 2005).

In other words, rather than assume fixity or territorial claims, these approaches focus on the production of *ontological politics* and claims about/to “the urban” (Mol, 1999). Multiple and shaped into being through socio-material and technoscientific practice, these claims are political (Mol, 1999). For example, Farías and Blok (2016), note the competing versions of “the City” produced by municipal government of real-estate markets. Similar to Callon’s (2005) use of *agencements* – which highlights the shaping, forging, and aligning of actions and actors and individuals and collectives – Farías and Blok (2016) offer *assemblies* as “a term meant to highlight the contingent and situated processes by way of which new urban concerns, constituencies and publics come together across difference” (p. 17). Explaining the political power of assemblage they argue,

the politics of urban assemblage involve new forms of collective experimentation and learning in which multiple forms of knowledge both expert and public, are brought together in new ways, in new hybrid forums and assembles (Blok & Farías, 2016, p. 242).

Urban assemblage theorists have built on understandings of atmospheres; moreover, cosmopolitics, to address the co-presence of multiple assemblages – or what Simone (2010) has termed *cityness* (Farías & Blok, 2016). Beyond the classical configurations of ANT (e.g., the focus on processes of enrolling, translating and mobilizing), the theoretical conjurings of *piling up* and *happening upon each other* entailed in cityness, emphasize their consequences rather than qualities (Simone 2010, cited in Farías and Blok, 2016). These consequences affect all actors, human and nonhuman, whose place in the commons is at stake.

3.3 Surveillant and Data Assemblages

While I have grounded this chapter around theories of urban assemblage, as detailed above, assemblages are multiple, contingent, competing, and sometimes converging. As Farías and Blok (2016) put forth in their volume on urban cosmopolitics, “places are not simply networked; instead they involve certain distinguishable ways of assembling and articulating sets of entities, relations, experiences and sensations into shared spaces of co-existence” (p. 18).³⁹ Similar to ideas of agencements and assemblies, more simply constituents, constituency and constituencies are (re)made. For example, in both empirical cases, understandings of surveillant and data assemblages serve as useful additions, and ways of seeing elements of the traced assemblages. Not separate or sub-forms of urban assemblages, stronger connection to and between these constituents is needed. However, rather than further stabilizing others’ accounts of particular assemblages or some generic notion of *the* data, urban, or surveillant assemblage and its composite parts, in Chapters 5 and 6 I offer accounts of my own tracing activity.

Surveillance studies seeks to explain new forms of technology and elements of surveillance society (Lyon, 2006a). Some have extended the sensory range (e.g., Delanda’s panspectron), and others have offered geometric reformulations (e.g., Andrejevic’s lateral surveillance, Mathiesen’s synopticon, and Mann, Nølman and Wellmans’ sousveillance) or critiques of the incompleteness of the gaze (e.g., Latour’s oligopticon). Alongside these theoretical endeavours many others have offered situated historic, spatial and cultural conceptions of surveillance studies in light of new technologies. Focusing on dataveillance (Clark, 1988) and the resulting infoglut (Andrejevic, 2013), some have examined the transformation of bodies into information (Poster, 1996; Simon, 2005) and personal information

³⁹ They note this idea maps on to the emerging discussion of atmospheres in the phenomenological sense (e.g., Latham & McCormack, 2010).

economies (Elmer, 2003; Gandy, 1993). Others, cautious of what all this information could be used for, have focused on predictive and pre-emptive applications of these technologies (Amoore, 2009; Van Brakel & De Hert, 2011). However, as environments become media enriched (Kitchin, 2014a; Kitchin, et al., 2015), information communication technologies converge (Castells 2011; Graham & Wood, 2003), mega-event policing initiatives become more mundane (Bennett & Haggerty, 2012; Boyle, 2011) and surveillance vanishes (Murakami Wood, 2015), perspectives that can explain these unfolding and networked forms of surveillance are needed.

Haggerty and Ericson (2000) proposed the *surveillant assemblage* in order to theorize and describe the mutually constitutive nature of technologies, bodies, and data, as well as their mutable and participatory forms. Like others discussing the proliferation and ubiquity of surveillance technologies and tactics, they argued that the convergence of these systems can heuristically be understood in terms of Deleuze and Guattari's (1987/1980) concept of the assemblage. Surveillance is driven "forward" by the compulsion to create interoperable systems (Haggerty & Ericson, 2000). Locating the human body as the target of the assemblage, they describe how bodies are deterritorialized and decontextualized into discrete flows, which are later reassembled and recontextualized (Haggerty & Ericson, 2000) – sometimes for the purposes of reifying particular categories (Hier, 2003). Rhizomatic in nature, the surveillant assemblage "has many and diverse instances connected to an underlying, invisible infrastructure, which concerns interconnected technologies in multiple contexts" (Ball, 2005, p. 94).

When discussing new urban surveillant assemblages, in particular BIA ambassador patrols, Lippert and Murakami Wood (2012) contend that rather than mere window dressing compared to more technological systems, their roles in urban surveillance are awkward and

contingent, but inherently implicated in the production of urban knowledges and the performance of urban surveillance (Lippert & Sleiman, 2012). Ambassadors not only surveil the area and move along unwanted populations, but also focus inwardly on BIA members (Lippert & Murakami Wood, 2012). However, ambassadors are only one of many of the crime control practices and policies carried out by BIAs. As ambassador programs, loss prevention officers, travelling technocrats, and joint policing initiatives proliferate urban space, this project seeks to trace BIA assemblages – the urban, surveillant, data assemblages, which align, perform and govern elements of the urban now.

Related to the above processes – while focused on the development of smart cities and impacts of big data – Kitchin and co-authors offer their own account of the data assemblage, as a “complex socio-technical system, composed of many apparatuses and elements that are thoroughly entwined, whose central concern is the production of a data” (Kitchin, 2014b, p. 25)

Apparatus	Element
Systems of thought	Modes of thinking, philosophies, theories, models, ideologies, rationalities, etc.
Forms of knowledge	Research texts, manuals, magazines, websites, experience, word of mouth, chat forums, etc.
Finance	Business models, investment, venture capital, grants, philanthropy, profit, etc.
Political Economy	Policy, tax regimes, incentive instruments, public and political opinion, etc.
Governmentalities and legalities	Data standards, file formats, system requirements, protocols, regulations, laws, licensing, intellectual property regimes, ethical considerations, etc.
Materialities and infrastructures	Paper/pens, computers, digital devices, sensors, scanners, databases, networks, servers, buildings, etc.
Organizations and institutions	Archives, corporations, consultants, manufacturers, retailers, government agencies, universities, conferences, clubs and societies, committees and boards, communities of practice, etc.
Subjectivities and communities	Of data producers, experts, curators, managers, analysts, scientists, politicians, users, citizens, etc.
Places	Labs, offices, field sites, data centres, server farms, business parks, etc., and their agglomerations
Marketplace	For data, its derivatives (e.g., text, tables, graphs, maps), analysts, analytic software, interpretations, etc.

Table 1. The apparatus and elements of a data assemblage (Kitchin, 2014b, p. 25)

Arguably an inventory or framing, of a general notion of data assemblages, Kitchin and Lauriault (201) identify the technological, political, social and economic actors (or apparatuses and

elements) that may (or may not) constitute a data assemblage.⁴⁰ Similar to theorists who have noted the *cooked nature* of data (e.g., Gitelman, 2013; Hacking, 1986; Ribes & Jackson 2013), the data assemblage is performed and enacted through its composition. Hacking (1995, 2007), explains the stabilization or data ontology in terms of the looping effect, and constructs a framework of elements or players at work in this process: classification, people, institutions, knowledge and experts. Through these elements of looping, people (and other actors) are constituted or *made up* (Hacking, 2007).⁴¹ For instance, Lauriault (2012) extends these *making* processes to space and data. As such, space is made up through the following engines of discovery: counting, quantifying, creating norms, correlation, taking action, scientification, normalization, bureaucratization, and resistance. These engines, among others, serve to assemble data and other constituents (Lauriault, 2012). Similar to other assemblages discussed above, they are always in a state of becoming and mutation – as organizational, regulatory and political climates change, new technologies and knowledge emerge (Kitchin & Lauriault, 2014).

3.4 Mundane Governance: Accountabilities and Ontologies

Rationalities are constantly undergoing modification in the face of some newly identified problem or solution, while retaining certain styles of thought and technological preferences. This is why it is useful to speak about social rationality as a government, without implying that they're all identical in origin or in detail; they form a broad family of ways of thinking about and seeking to enact government, conceiving of that which is to be governed as society of inter-dependent citizens interlocking social and economic processes that are amenable to knowledge and planning (Rose, O'Malley & Valverde, 2006, p. 98).

⁴⁰ Kitchin and Lauriault (citing Gordon, 1980) like many others note the resemblance between assemblage and Foucault's notion of the *dispositif* – “thoroughly heterogeneous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws, administrative measures, scientific statements, philosophical, moral and philanthropic propositions” (p.194).

⁴¹ For Hacking (2007), these elements make up people (in a biomedical sense) through engines of discovery: counting, quantification, normalization, correlation, medicalization, and reifying biology and genetics.

While neo-Foucauldian theorists have complicated their understandings of *technology* (e.g., Dean, 1996; Hacking, 2007; Rose et al., 2006), Woolgar and Neyland (2013) further challenge the ascendancy and explanatory power of governance and governmentality. They argue that the *metaphorical* treatment of technologies, overlooks the technical (Woolgar & Neyland, 2013). To some extent revitalizing Latour's (1992) critique of *people acting at a distance*, through their respective opuses they examine the role of *mundane governance* – the ways in which our everyday lives are increasingly regulated or controlled in relation to ordinary objects and technologies (Woolgar & Neyland, 2013).⁴² From garbage bins to water bottles, they focus on the arrangement of relations of governance and accountability around these mundane objects. Specifically, using ethnomethodology and ethnography, they examine (but also stress the importance of examining) how governance and accountability are experienced; moreover, how accountability relations⁴³ are enacted (Woolgar & Neyland, 2013). Focused on accounts and *on the ground relations*, they distinguish mutual and organization accountability, the former as constitutive sense-making, and the latter involving the assessment of accountable entities.⁴⁴

Drawing on the idea of interpretive flexibility (Bijker, 1995; Pinch & Bijker, 1984), they examine how *entities* are politics by other means and “the ways in which objects and technologies are made to *do* political work” (Woolgar & Neyland, 2013, p. 39). Connected to the above discussions of ontological politics, particular attention is paid to the cultural and social processes whereby the nature of mundane things come to *matter* (Latour, 2004). Influenced by ANT, and assemblage-based accounts, Woolgar and Neyland emphasize the role of stability. In

⁴² The study of artefacts and objects has long been central to the field of STS (e.g., Akrich, 1992; Latour, 1998; Law, 1996; Winner, 1980). More than merely reflecting the social, Latour (1992) argues artefacts, “transcribe and displace the contradictory interests of people and things” (p. 226).

⁴³ Accountability relations here are referring to the communication of governance (Miller, 1992; Ericson, Doyle, & Barry, 2003, cited in Woolgar and Neyland, 2013).

⁴⁴ Woolgar and Neyland (2013), note questions of accountability are bound up in issues of visibility and representation (e.g., Jordan & Lynch, 1998), which are returned to in Chapter 6.

other words, successful depictions of the effects of objects (or their assemblage) necessitate ontological stability (Woolgar & Neyland, 2013). So, challenging and yet extending STS slogans⁴⁵, they contend “objects (and technologies) are governance and accountability made durable” (Woolgar & Neyland, 2013, p. 2013, p. 46). Rather than assume a traditional or organizational notion of politics, far more attention needs to be paid to the ontological politics of objects. Whereas Mol (1999, 2002) demonstrates politics through ontological multiplicity, Woolgar and Neyland (2013) contend that the accomplishment of ontological singularity is also political.

To be clear, to call something mundane is not to trivialize the practice. As of the world, the mundane is often far from mundane. As Woolgar and Neyland (2013) note,

The mundane is at once mundane and profound; ordinary and extraordinary; inconsequential and highly political; unremarkable and the focus a great passion. So our central curiosity is: how is this done? How can something as lofty as governance happened in relation to ordinary things? (p. 260).

The mundane with its omnipresence, significance, morality, irony, exoticism and incongruencies make it an important point of study – if not an also seemingly ordinary one, as we become “armchair auditors” (Woolgar & Neyland, 2013, p. 266).⁴⁶ As demonstrated throughout the literature and empiric cases, critique and change persist, so too the seemly mundane is also ontologically insecure.

⁴⁵ Specifically, Latour (1991) “technology is society made durable.”

⁴⁶ Woolgar and Neyland (2013) conclude with a discussion of the power and instability of (mundane) governance, citing crisis, reform and austerity. Cuts and less scrutiny of accountability may in effect outsource mundane governance leading to leaner citizen-led accountability.

3.5 Making Markets and Making Value

Markets evolve and, like species, become differentiated and diversified. But this evolution is grounded in no pre-established logic. Nor is it simply the consequence of a natural tendency to adapt. Economic markets are caught in a reflexive activity: the actors concerned explicitly question their organization and, based on an analysis of their functioning, try to conceive and establish new rules for the game (Callon, Méadel & Rabeharisoa, 2002, p. 194).

Similar to earlier turns to technology, STS has also seen a turn to *the market*, specifically the practices of actors engaged in market activity. Rather than “cold, implacable, and impersonal” Callon (1998) emphasizes an anti-essentialist perspective that conceives of economics and the market as co-constituted, multifaceted, relational and performative (p.51). Economic knowledge in the broad sense of the term, performs, shapes and formats the economy, rather than observing how it functions (Callon, 1998, p. 2). Focused on the role of actors in reconfiguring markets, Callon, Méadel and Rabeharisoa (2002) refers to this reflexive activity as *the economies of qualities*. The qualities of goods are both intrinsic and extrinsic, determined through processes of qualification-requalification through which qualities are “attributed, stabilized, objectified and arranged (Callon et al., 2002, p. 199). They ask what qualities come to matter (or value), and how? To them, calculation and performance make the market by framing service providing (Callon, 1999; Callon et al., 2002). This entanglement of personal relations and socio-technical capacities blurs distinctions between production, distribution and consumption (Callon et al., 2002).

Beyond “the market”, and further decentring economic and fiscal sociology, this vein of theory has focused on practices and performances in areas such as marketing accounting and valuation (e.g., Espeland & Lom, 2015; MacKenzie, Muniesa & Sui, 2007; Vatin, 2013).⁴⁷ For

⁴⁷ Once again, these are very artificial distinctions, most discussions of performative economics or STS market studies involve a combination of these practices as they occur in situ.

example, focused on the role of marketing and tellable stories in the making of technologies markets, Simakova and Neyland (2008) note the alignment of constituencies in the production of markets, and how they are made more durable through the articulation of compelling stories. Moving away from terms like imbrolios and agencement, they offer the term constituency (see discussion above) to better reflect the instability of these processes, as well as the discursive accomplishments, which attempt to make constituencies *stay together* amidst sudden movements.⁴⁸

Others have focused on the practice of accounts, accounting and accountants. While heavily influenced by and based in neo-Foucauldian thought, field studies in accounting have increasingly foregrounded the variety of agents and agencies, knowledges and practices, and the shaping effects of institutions in the practice of accounting (Miller, Hopper & Laughlin, 1991). For example, Miller (1998) examining *accounting at the margins* notes the multiple sites and sources it takes places in, its permeability to other sources of expertise, as well as its bricolage composition. Similar to critiques wielded against ANT and urban assemblage theories, Miller (1998) cautions that tracing the “making of accounting” does not equate to saying accounting does not *really* exist; instead the aim is to highlight how calculative practices and rationalities have been assembled ad hoc and often in relation to other concerns. In particular, Miller (2001) notes the influence and impact of calculative practices to alter the capacities of agencies, organizations and the connections amongst them.

As posed by Stark (2009) “What counts? ... What is valuable, and by what measures?” have long been ubiquitous to everyday practice (p.9). In particular, questions of performance and evaluation originating with John Dewey’s theory of valuation have gained greater prominence in

⁴⁸ Influenced by the trajectory of Neyland’s tome of work, this collaborative piece, in addition to other text cited throughout, draws clear connections between ontological governance, performativity and accountability.

light of the aforementioned shift to NPM. These market rationalities have made measures and benchmarking common practice in a range of institutions and domains of human activity (Espeland & Stevens, 2008; Lamont, 2012). At times mundane, yet impactful, the performance of valuation combines actors, knowledges, and practices in order to govern constituencies (Birch, 2017; Helgesson & Muniesa, 2013). Not an isolated performance, value is constituted, configured, and orchestrated in tandem with other practices; moreover, involves a “set of political-economic and technoscientific activities, models, logics, and laws (Birch, 2017, p. 466).

3.6 Assembling BIAs: Seeing, Accounting and Otherwise-ing

In order to approach a radical rethinking of what BIAs are and what they do, I’ve assembled an analytical frame (of sorts). These sanitized accounts and approaches to theory have congruent orientations to ontology work and ontological politics. In order to foreground what this approach can be used for, what it does, and what it enables us to see – in this section I reflect on a series of ontological questions. In considering what theories of urban assemblage (and related theories) can offer – like Murdoch, Fariás and Bender, rather than revert to dualisms or static, orthodox shorthands to stand in place for contingency and multiplicity – I pose these questions and false binaries as a means of highlighting the similarities between “avowedly relationalist [theories concerned with] spatial marginality, resistance and transgression” (Murdoch, 1998, p. 369).

***What is the Object of Study: Capitalism or the City?*⁴⁹**

As referenced above, urban studies had reached an *impasse* with most work on cities agreeing upon destabilization, a lack of socio-spatial orientation, centres of consumption, vanishing spaces of production, and a dual divided nature (Thrift, 1993). Distancing themselves

⁴⁹ The proceeding numbered headings engage in similar ontological politics. As detailed in the empiric cases, these terms offer other insights into the trace assemblage, albeit at times further stabilizing my own accounts.

from existing ecological, economic, and cultural approaches, which were reproducing static and synecdochal accounts of cities, urban assemblage theorists attempted to further decentre the object of study (Farías, 2010). They argue that much of urban theory had lost sight of the object of study – cities and urbanization – by letting cities stand as instances of capitalism (Farías, 2010). While capitalism is not the central or guiding concept for urban assemblage theories, this does not imply a disregard or dismissal of economic processes. In fact, much work in this vein focuses on political and economic processes and seeks understand them through their constitution rather than pre-given assumptions. Furthermore, this goal is shared across many sides of “the debate”. For example, Leitner, Sheppard, Sziarto and Maringanti (2007), reflecting on whether we “live in a neoliberal society” argue,

Not really, cities remain more than engines of spatial competition, welfare reform, and neoliberal subject formation. Indeed, they have become central spaces where the hegemonic struggles over neoliberalism are now being fought...[however] there are clearly non-neoliberal social and spatial imaginaries, alternative forms of subject formation, and new emerging practices of contestation (Leitner et al., 2007, pp. 21-22).

Neoliberalism and its variants (e.g., Brenner, Peck & Theodore, 2010; Peck, 2010), as an analytic tool has a hegemonic grip on contemporary political economy and the vernacular. Rather than perform its ascendancy or its explanatory power of social change, by focusing on situated assemblages of actors, histories, practices, urban theorists have challenged the object of study. Instead of placing capitalism as an entry point to investigation, urban assemblage puts the city at the centre of investigation (Farías, 2010). Rather than assume what the city *is*, what it *is made of*, or how it *organizes* collective life, working from a transactional, dynamic and dwelling perspective enables descriptions or accounts of *becoming* rather than relying on external explanations (Bender, 2007). While capitalism, neoliberalism and other political economic shorthands are arguably at play with BIAs – more specifically the mandates, technologies and

practices they each adopt – serve as the entry points into the assemblages. As Lippert (2014) notes,

If governmentality is about inventiveness, it is more about how to use what is available and less about deploying technologies fresh from “eureka” moments. The foregoing reveals one way neo-liberalism can sustain itself or at least avoid conflict. Neo-liberalization seems to entail working alongside alien elements – attributes not necessarily befitting neo-liberalism – that nonetheless remain in place after neo-liberalism’s arrival. (p. 64)

In the following chapters, building on the work of Woolgar, Neyland and Lippert, I decentre BIAs, in order to examine their practices and the technologies they adopted, as instances of mundane governance.

How is Space Produced: Fetishized Scales or Relational Networks?

[...]if there is one thing you cannot do in the actor’s stead it is to decide where they stand on a scale going from small to big, because at every turn of their many attempts at justifying their behavior they may suddenly mobilize the whole of humanity, France, capitalism, and reason while, a minute later, they might settle for a local compromise... scale is the actor’s own achievement. Although this is the oldest, and in my view, the most decisive proposition made by ANT, I have never encountered anyone who could accept to even glance at the landscape thus revealed – no more, if I dare the parallel, than Galileo could tempt his ‘dear and respected colleagues’ to have a look through his makeshift telescope. The reason is that we tend to think of scale – macro, meso, micro – as a well-ordered zoom” (Latour, 2005, pp. 184-185).

While early ANT scholars were quick to dismiss the importance of geography, narrowly conceptualizing it terms of an attachment to Euclidean and Cartesian thought, urban assemblage theorists attempted to specify these critiques by taking aim at the politics of scale.⁵⁰ While

⁵⁰ Rooted in critiques of Marxian and Weberian traditions of political economy, geographers have attempted to escape the territorial trap – assumptions concerning sovereign unilateral control of borders, the ontological construction of domestic and foreign, and the state as a static and timeless container of space (Agnew, 1994.) Rather than take “the spatial” as a given, resulting discussions in critical geography and urban studies have explored contested relations across topologies, spaces, places, territories, and scales of action (Brenner, Jessop, Jones, MacLeod, 2003; Mahon & Keil, 2009). Thematically, urban scholars have turned their attention to areas of: society and space (Harvey, 1982, 1996; Lefebvre, 1991; Mann, 1993); globalization debates (Cox, 1997; Brenner, 1997; Swyngedouw, 1997); urban restructuring (Peck, 2001; Jessop 2002); and new localism and new regionalism (Keil, 2009; Sassen, 2001; Smith, 1984), among many others. These thematic areas have resulted in the political economy

lacking some analytic precision,⁵¹ Lathan and McCormack (2012) argue that scalar theorizing struggles to 1) account for patterns and associations that fall outside of or confound these schemas,⁵² 2) adequately describe scalar transformation, and 3) escape hierarchies that privilege the global. In refusing to presuppose the shape of the world or take analytic shortcuts, urban assemblage theories challenge other approaches which have fetishized scale and space as separate from the practices, processes and relations that produce them (Lathan & McCormack, 2012; Latour, 2005). Referred to as a flat ontology or topological approach, urban assemblage offers a useful way of thinking about how spatial relations come to be networked through practice⁵³ (McFarlane, 2011; Murdoch, 1998). There are no dualisms of global/local, micro/macro – there are only networks (Jóhannesson & Bærenholdt, 2009; Murdoch, 1998). As argued by MacKinnon (2011) and furthered by Murakami Wood (2013), relational thinking while focused on more fluid and dynamic conceptions of space, is not incompatible with *scalar politics*.

Through investigating the heterogeneity of networks, urban assemblage theories focus on the process of association and the spaces that emerge from them. For example, theorists have extended these conceptions of networks with notions of *spaces of prescription* and *negotiation* (Murdoch, 1998), or *gellable spaces* (Tironi, 2010), to account for their construction, scripting, ambivalence, or rigidity. In both Chapters 5 and 6, I explore the ways in which space is

of scale, understood as “ways in which the scalar organization of political and economic life under capitalism is socially produced and periodically transferred” (Brenner et al., 2003, p.3).

⁵¹ Like others, I argue that these contemporary debates, as well as their resolutions, are indicative of longstanding trends in political economic geography and Marxian scholarship more generally. Presaged by Institutional Marxism in the 1970s, and the later cultural turn in economic geography, ANT is in many ways similar to the emphasis placed on the interconnection and spatial formation of markets (Jóhannesson & Bærenholdt, 2009; Kirsch & Mitchell, 2004). Similarly, the work of Massey (1991), Giddens (1990) and Harvey (1989) on space and time can be understood as tending towards ideas held by urban assemblage theorists.

⁵² Or what Callon (1998, 2007) referred to as overflowing mechanisms.

⁵³ As stressed by Latour (2005) “we have to lay continuous connections leading from one local interaction to the other places, times, agencies through which a local site is made to do something” (p.173).

performed, performed, enacted and stabilized through the alignment of constituents and constituencies.

What or Who has Agency: Humans, Nonhumans or Both?

Perhaps the most well-known and for some the most controversial travelling concept from ANT and assemblage theory, is the distribution of agency to *human and nonhuman actors*. Urban assemblage theories embrace this methodological tool (or socio-technical agencements) to account for the heterogeneous agencies, that lead to particular enactments of the city (Farías, 2011; McFarlane, 2011). When agency is an emergent capacity of assemblages, it requires processual thinking (McFarlane, 2011) and that a “panoply of entities be flexibly taken into account and described, in detail, whether they are human beings or material and textual elements” (Çalışkan & Callon, 2010, p. 8).

Neither claiming the ability to “tell the whole story”, nor resorting to a generic argument of “vagueness”, these theories posit that tracing *action* and *association* offers different insights into the making of urban worlds, albeit sometimes mundane ones. While some have argued that this orientation towards mundane materialities may be of little *value* or misses the point, the study of materiality is not “new” to political economy. In fact, contemporary political economy owes much to the study of the commodity, and more recently to a focus on infrastructures. I argue that the mobile applications and platforms in each case – while developed, customized and used by human actors – perform and enact and circulate as well.

What is Possible: Processes of Formation and Multiplicity?

Theories of urban assemblage offer a methodological approach for studying urban inequalities as they are produced through relations of history and potential (McFarlane, 2011). By tracing the historic and contingent processes that produce a multiplicity of enactments,

assemblage thinking attempts to avoid reductionism, essentialism, and teleology (DeLanda, 2006). Although some may conceive this focus on *potentials* and alterity as minimizing real problems or erasing power, the examination of the actual, the possible and alternative interpretations, has been a central concern of (urban) political economy, as well as a means of destabilizing and debunking knowledge claims. Furthermore, this focus on possibility and alterity is not limited to discussions of urban assemblage, nor is it dissimilar from re-articulations of dialectical thinking (e.g., Brenner, Marcuse, & Mayer, 2009; Harvey, 1989, Lefebvre, 1991). For example, by emphasizing alternative enactments of *urbanisms* this analytic tool enables us to consider how other worlds might be assembled and how that might take place.

Rather than prefigure or script an alterity, this discussion shifts concern to the *making* of alterity, “based upon mutual recognition and solidarity, and on the generation of new compositions across difference” (McFarlane, 2011, p. 222). Indebted to Lefebvre’s *right to the city*, (Jiménez, 2014) suggests that this right is closer to “the right to infrastructure [...] the shared capacity to ‘escape the human-nonhuman and epistemology-ontology dichotomies altogether by opening up the agential work of infrastructures as a source [...] of possibilities in their own right” (as cited in Blok & Farías, 2016 p. 242). The imaginative political project envisaged by ANT and urban assemblage is certainly radical, but not in a traditional emancipatory sense (Farías, 2011). Instead, its radicalness comes from its ontological commitment to multiplicity, heterogeneity, and democracy as participatory practices which recognize and represent humans and nonhumans as political actors (Callon, Lascoumes, & Barthe 2009; Farías & Blok, 2016; Latour, 2004).

What is the Purpose of Research: Critique or Inquiry?⁵⁴

Detailed in initial debates, this approach to research has been cast as “naïve objectivism” and not the basis of strong research. As further detailed in Chapter 4, when working with congruent methodologies and methods, I contend strong empiric inquiry serves as an entry point (among others) into the shaping and accounting practices and processes of urban life. Instead of reducing urban situations to orthodox questions of structure, reifying cohesion, or assuming privileged access to *reality*; inquiries into the urban necessitate a humble recognition – that when confronted with uncertainty we may not know what we are looking for (Fariás, 2010).

While starting with inquiry and a dedication to the empiric, urban assemblage theories are not at odds with, nor preclude the role of critique. In fact, *after* tracing, critique and other theories are necessary to make *it work*. Not opposed to theory, urban assemblage theorists argue that what their *theorizing* is at odds with, is simply a critique that privileges theory above all else (Fariás, 2010). In other words, rather than a structural analysis or critique, its empirical focus and dedication to generalized symmetry affords the opening of black-boxed practices, processes and socio-material relations (Fariás, 2010; Law, 1991, 2004), as well as the theorizing of relations that exceed present conceptions (Anderson et al., 2012). By asking “who and what is taken into account and who or what is not”, and “how forms of life are composed, subordinated or excluded,” they contend this mode of theorizing offers a more democratic form of participatory politics (McFarlane, 2012). Taking the very basic tenants of ANT and congruent theories to heart, by following the actors and not changing conceptual repertoires, in each empirical chapter, I address and unpack these questions and related practices.

⁵⁴ Owen addresses a similar question and recommends Foucauldian genealogy as a form of exemplary critique. “In advocating an ethics/politics of exemplarity in which integrity proves itself through contestation and in showing this ethics/politics through such contestation, genealogies do not abnegate political and intellectual responsibility but constitute themselves as exemplary exemplars of engaged and committed thought” (Owen, 1995, p. 504).

3.7 Conclusion: Performing Mundane Urban Data Surveillance

While there may be clear ontological differences – if we are to fixate on orthodox and artificial divisions, or simplistic typologies of realism, objectivism, constructivism, and emancipation – by thinking with and thinking through assemblages it can be argued that a relational and material approach enables us to see multiplicity and compatibility between these approaches. Arguably informed to some extent by the aforementioned definitions and discussions, this is neither a starting place, nor stable framing.

Indeed, as soon as we start scratching the surface, we encounter emergent groups, multiple lay-expert knowledge forms, programmes of action, valuation regimes, fluid topologies. Thus, instead of reducing urban situations and controversies to ‘points of collision’, inquiring into the urban involves recognizing that we, urban students, often confront radically uncertain situations in which we don’t know what we are looking for until we find it (Farías, 2011, pp. 366-367).

If the city is the lab – full of innovation, accidents and breakdowns – then it is an ideal site for an investigation of this sort. By reimagining the urban Amin and Thrift (2002) argue, that while cities have momentous power, they are not complete, bounded or totalizing, there are always countervailing tendencies. The networks that make up urban life are risky and reluctant (Amin & Thrift, 2002). They are of varying lengths, constantly interacting and interfering with each other (Amin & Thrift, 2002). Furthermore, these networks are often illusions and always appear tighter than they are – networks, in actuality, breakdown and shatter (Amin & Thrift, 2002; Kitchin & Dodge, 2011).⁵⁵ Negotiating these breakdowns or going off-script is a fundamental part of urban life, which produces new networks of association (Amin & Thrift, 2002). Like other theories of ontogeny, they argue that networks of governance are not pre-

⁵⁵ Noting the limits of the network metaphor (in part because of our normative conjuring), Latour (2005) argues, “a network is not made of nylon thread, words or any durable substance but is the trace left behind by some moving agent. You can hang your fish nets to dry, but you can’t hang an actor-network: it has to be traced anew by the passage of another vehicle, another circulating entity” (p. 142).

determined, as there is an internal recognition that they are dealing with the *unknown* and the *ungovernable*. In other words, “they interact and interfere with each other in ways which are not predictable, and which produce emerging forms of social organization in ways that cannot be foreseen” (Amin & Thrift 2002, p. 129).

These approaches not only offer a conceptual and methodological⁵⁶ means of describing the inquiries of actors, but also offer methodological flexibility (Sayes, 2014). Against dualisms and hierarchies (e.g., managerialism versus entrepreneurialism), structured epistemologies of knowing the city, or static understandings of surveillance networks; this project seeks to decentre understandings of BIAs by tracing the reassembling of the multiple city: *what constituents are necessary, how are they aligned, and how do they stick together or breakdown?* As Callon (1998) argues, dominant stabilizations are fleeting, inherently unstable, and occur through chance associations. Ways of seeing with urban assemblage, “serve to reanimate a politics of thick description, one committed to the deployment of fine-grained ethnographic techniques in order to reveal the ‘messy conjectures’ of concrete urban situations” (Blok & Farías, 2016, p. 227). Theories of urban assemblage offer an imaginary of bricolage and composition (McFarlane, 2011). By combining ideas of the right to the city with the notion of cosmopolitanism, this orientation aims to develop more inclusive collective representations that evoke new possibilities for knowing and acting in the city (McFarlane, 2011).

⁵⁶ Like others, I argue that a symmetrical methodological approach to investigation better allows for the exploration of alterity.

...such an inquiry would need to illuminate the manifold ways in which the users of urbanizing spaces produce and transform their own urban worlds through everyday practices, discourses and struggles, leading to the formation not only of new urban spatial configurations, but of new visions of the potentials being produced and claimed through their activities (INURA, 1998, cited in Brenner & Schmid, 2015, p. 178).

As long stressed by ANT and assemblage theorists, and now by urban studies scholars, the urban is a collective project, produced through action, negotiation, imagination, experimentation and struggle (Brenner & Schmid, 2015, p. 178). It is not an achieved condition, but rather a constantly (un)folding process (MacKenzie, 2009). Finally, when extending understandings of collective action, it is important that we as social scientists recognize ourselves as actors contributing to the performance and shaping of our objects of study (Callon et al., 2002).

Chapter 4

Methodology and Methods

Social inquiry and its methods are productive: they (help to) make social realities and social worlds. They do not simply describe the world as it is, but also enact it... If social investigation makes worlds, then it can, in some measure, think about the worlds it wants to help to make (Law & Urry, 2004).

Recognizing the constitutive processes implied in theoretical and methodological decisions, the following section begins with a description of Peck and Theodore's (2012) distended case approach. Guided by the aforementioned ontological and epistemological foundations, the remainder of this chapter details the research design for this multi-phase, mixed method project. Specifically, I outline the methods used for data collection and analysis in the research phases, and I conclude with a reflective discussion of positionality and accountability.

4.1 Following and Tracing: The Distended Case Approach

With a positivist inheritance, social research has long been concerned with evaluating its quality. When grappling with modernist concerns of truth, value, applicability, consistency, neutrality and authenticity, measures such as validity and reliability became evaluative criterion (Seale, 1999). However, these forms of evaluation have been called into question, especially when confronted with ontologies and epistemologies based on multiple realities. While some methodological concerns were quickly dismissed by equating postmodernism with anti-empiricism, ANT and urban assemblage approaches are anything but "anti-empirical". As stressed by Farías (2011),

ANT is indeed extremely helpful for engaging with the empirical, for instead of a general theory of the social, based on fixed concepts, it offers a theory about how to conduct inquiries and how to elaborate concepts. Three methodological principles summarize its commitment to the empirical: 'follow the actors, forget the contexts', 'describe, don't explain' and 'do not switch conceptual repertoires when you describe' (p. 367).

While ANT is fundamentally a methodology, some of the more practical elements of the distended case approach can aid in its implementation. Responding to orthodox policy transfer analysis, the distended case approach builds on innovative studies of commodity chains, expert networks and mobile text in order to follow policies through multiple sites (Peck & Theodore, 2012). Developed in relation to empirical studies of policy mobility, this methodological approach is used to follow objects, things, practices and ideologies (Peck & Theodore, 2012). By expanding on (and sometimes in opposition to) the aforementioned ontologies, actors and actions are understood as mediated by, and constitutively embedded within, networks of knowledge, institutions and landscapes (Peck & Theodore, 2012). Not static, immobile, or emulative, technologies and *things* are conceived of as complex, evolving and mutable.

In practical methodological terms, the distended case approach is an exploratory means of connecting the places of intervention with spaces of circulation and centres of translation, but also with the everyday practice of implementation (Peck & Theodore, 2012). While everyday practice is often overlooked by orthodox approaches that focus on scientific and sanitized products, the process through which these objects become real is fundamental to understandings of mobility and mutation (McCann & Ward, 2011; Peck & Theodore, 2012). To do so, the distended case method combines the research design strengths of multisite ethnography and the extended case method (ECM). Specifically, it constructively challenges ECM's central aims of extending: 1) the observer to the participant, 2) observations over space and time, 3) out from process to force, and 4) theory⁵⁷ which is detailed throughout (Burawoy, 1998, 2009).

If the ECM seeks to extend the observer to the participant, the distended case method further disrupts this process by using a combination of participant observation, document

⁵⁷ Once again, the incorporation of "theory" is by no means antithetical to the orientations specified up above. I contend, this is when these other ontological claims are brought into the frame.

analysis, and in-depth interviews to interrogate and triangulate.⁵⁸ Rather than the positivist and modernist conceptions of triangulation (see Denzin, 2012), which assume a fixed, singular reality, post-humanist theories have borrowed and expanded this term to consider multiplicity and complexity. For example, Cook (2004) makes a compelling, performative case for using a bricolage of methods when following a thing.

If we accept that geographical knowledges through which commodity systems are imagined and acted upon from within are fragmentary, multiple, contradictory, inconsistent and, often, downright hypocritical, then the power of a text which deals with these knowledges comes not from smoothing them out, but through juxtaposing and montaging them ... so that audiences can work their way through them and, along the way, inject and make their own critical knowledges out of them (p. 642).

This bricolage symmetrically extends these methods to nonhuman actors, beyond the experts initially intended by Peck and Theodore (2012). Proponents note that this disruptive force must be weighed against practices of *studying out* and *studying up* (see Gutterson, 1997; Forsythe, 1999), and in doing so challenging expertise.

Critical of extending ethnographic practices across space and time (the second goal of ECM), the distended case method conceives of spatial relations within networks (Peck & Theodore, 2010). Rather than sites of standard proscriptive application and implementation, these networks assemble transformative processes that “operate, evolve, breakdown, trigger countervailing forces and so on” (Peck & Theodore, 2010). This methodological approach, aligning with theoretical discussions above, requires contesting teleological, top-down, and centre-to-periphery theorizing. If the ECM uncritically adopts causal mechanisms connecting micro-social processes to macro-forces, the distended case approach explores a range of granular

⁵⁸ The integration of different methods, a highly productive practice that is the subject of many textbooks, often requires critical reflection on the research questions and the methodological foundations of the project (Mason, 2002). In studies that pursue a multi-faceted understanding of social phenomena, data triangulation adds “rigor, breadth, complexity, richness and depth to any inquiry” (Denzin, 2012, p. 82).

and uneven “heterogeneous networks of innovators, emulators, adaptors, and circulators” (Peck & Theodore, 2010). Furthermore, as opposed to the ECM’s aim to reconstruct rather than apply or test theory, the distended case method is primarily an exploratory endeavour (Peck & Theodore, 2012). These network-orientated methods – focused on the embodied, embedded, performative and material nature of these processes – require careful theorization, not a priori determinations.

Informed by theories of becoming and *mattering*, this approach offers a means of examining how the governance of urban life unfolds in diverse ways through the co-constitution of BIAs, and their socio-spatial, data-driven or surveillance practices. This methodological approach also provides ways of collecting accounts – by tracing the shifting and unstable connections between various actors through the particular sites where policy is circulated, translated and executed, in order to identify the local, granular and uneven inflections of data and surveillance practices (Murakami Wood, 2013; Peck & Theodore, 2012).

4.2 Data Collection

This qualitative, multiphase, multi-sited, exploratory project employed non-random purposive sampling in order to investigate the adoption of geospatial apps and data-driven practices in/between BIAs in Canadian cities.⁵⁹ The research project was divided into three “phases” in order to fully address my research questions and aims. These phases included: 1) document collection of reports, presentations, webinars, images, maps, and recordings created by BIAs,

⁵⁹ This research design resembles other projects in the fields of sociology, surveillance studies and urban geography (see Clough & Vanderbeck, 2006; Hier & Walby, 2014; Lett, Hier & Walby, 2012). For example, Walby and Hier’s (2014) study of video surveillance policy and implementation in Canadian Business Improvement Districts used a non-random purposive sampling to conduct interviews with managers and members of 12 Canadian BIAs. After coding interview transcripts and analyzing secondary data, Walby and Hier selected 4 mid-sized Canadian cities – Williams Lake, Peterborough, Winnipeg, and Orillia – as illustrative cases.

consulting firms, and various levels of government; 2) attendance at placemaking conferences, workshops and events; both of which informed 3) two in-depth case studies of BIAs in Toronto and Vancouver, detailed below, where I conducted semi-structured, in-depth interviews, work-shadowing and participant observation.⁶⁰

4.2.1 Following Texts and Document Collection

Document analysis is congruent with an ontological and epistemological position that contends written words, texts, documents, records, technologies, spatial phenomenon, etc., are meaningful enactments (Mason, 2002), and can broadly provide insights into how surveillance practices are articulated, translated, aligned and circulated. DiMaggio and Powell (1983) argue that documents are important mechanisms in the constitutive alignment, standardization, and legitimization⁶¹ of organizations. As a predominantly unobtrusive method, document analysis is often the closest, feasible and durable means for a researcher to gain historical and contemporary insights into practices and processes of surveillance (Creswell, 2009; Goody, 1986). Based on the “paper generating” nature of many organizations, document analysis enables multiple readings as well as the configuration of ideas across time and space (Taylor, Cooren, Giroux & Robichaud, 1996). While restricted to what is documented or “put on the record”, documents provide insight into what actors deem important, and may offer another account when combined with multiple methods (Creswell, 2009).

⁶⁰ The subject of an in-progress manuscript, during my field work I conducted two case studies on GeoPal itself, tracing its development in Dublin to now having some of the smallest and largest clients (e.g., Dublin Town and Times Square Alliance respectively). Not only following its adoption in circulation, I have also looked at its use in the UK specifically with two BIAs in London (see discussion below).

⁶¹ For Hasslebladh and Kallinikos (2000) “no organization could support its status as a formal system without the arsenal of verbal and numerical techniques through which its goals and operations are described, organized and controlled. A theory of institutionalization should therefore be capable of accounting for the forms by which organizational objects, procedures, and roles develop and become embedded in organizations” (p. 703).

However, document analysis can also be a limited form of research for following organizational practices and processes, especially, on their own. As recounted by Marx (1984), data collection requires searching for information in hard to find places, and when found, it may be protected, private or incomplete. The quality of written records is also contingent on how articulate the writer is, or wants to be, and is limited by the purpose of the document (Creswell, 2009). By presenting official versions of events, documents often erase the informal processes, considerations and debates that precede their making (George & Bennett, 2005). For example, when governments, organizations, and businesses disclose their use of surveillance, their practices may be placed in relation to broader discourses of “balance”, “public safety” and “crime control”, or in relation to particular events. Due to these contexts and issues, the epistemological claims that one can ascertain from document analysis beg the question, can documents be treated as stand-alone evidence or are they inherently narrativized by a researcher? Walby (2005) argues that surveillance generated texts necessitate a reading and activation by the surveillance worker, and therefore, to be deciphered, they must be placed in the surveillance circuit. However, a methodological approach that acknowledges nonhuman actors, to some degree overcomes this critique by treating texts or objects as actors alongside many others. For example, similar to Phillips, Lawrence and Hardy’s (2004) discursive understandings of institutionalization, extending agency to documents better acknowledges how *things* circulate and influence the actions of others. Texts do not simply move in space – they create it (Tironi, 2010).

In order to ensure a thorough knowledge of current BIA events and practices from 2013 to 2019, I collected over 2,500 documents. These included reports, presentations, images, maps, marketing materials, media articles, press releases, and videos, which were created by BIAs,

consulting firms and various levels of government. Broadly the texts concern: policing, social issues, governance, innovation, and partnerships. To conduct document collection, I initially narrowed the target population to 147 BIAs in Canada's five largest English-speaking Census Metropolitan Areas. This specific sampling frame includes 83 in Toronto (City of Toronto, 2019b), 22 in Vancouver (City of Vancouver, 2019), 12 in Calgary (City of Calgary, 2018), 13 in Edmonton (City of Edmonton, 2019), and 19 in Ottawa (City of Ottawa, 2019). However, due to the traveling "nature" of BIAs through trans-urban pipelines, documents about overarching organizations or how these policies and practices moved between multiple locations were also collected. In 2016, after the in-depth case sites were selected, document collection was further narrowed to BIAs in Toronto and Vancouver, as well as related areas and issues.

News articles were collected through an alert system, subscriptions to placemaking newsletters and publications, and using a news database. Organization information (e.g., BIAs, BIA Associations) was collected with monthly visits to their websites and by "following" them on social media. Public and government data was collected via websites, online open-data portals and in some cases through FOI and ATI mechanisms.⁶² Collected data were saved in PDF, JPEG or MOV file formats and stored electronically. Documents were filed and tagged based on the city, BIA and types of practice they were engaging in. In preparation for analysis and writing, cases were further narrowed, thematically organized, and roughly coded (Hiseh & Shannon, 2005; Krippendorff, 2005). While not using a grounded approach to theory construction, coding categories were emergent, inductive, and primarily influenced by language found throughout the documents.⁶³

⁶² The subject of a forthcoming publication (see Mackinnon, 2019) – I have previously used FOI and ATI mechanism to study PPP and BIAs. Due to the chain of custody of information, this information remains very limited. Therefore, in order to approach my research questions, I opted for different methods.

⁶³ For another project focused on BIA policing events, issues, and partners were collected into an Excel spreadsheet.

4.2.2 Conference Ethnography: Following and Tagging Along⁶⁴

Conference ethnography, a variant of multi-sited ethnography, has become a contemporary practice for collecting data about transnational discourse associations, trans-urban pipelines, and international organizations in many disciplines. Similar to other studies of mobile “elites” – *studying up* (Nader, 1972), *studying sideways* (Hannerz, 1998, 2006), *studying through* (Nyqvist, 2016; Wright & Reinhold 2011), *following* (Cook, 2004; Marcus 1995), and *tag along* fieldwork (Nyqvist, 2016) – insights from these ethnographic methods can be applied to large scale professional gatherings (Nyqvist, Høyer Leivestad, & Tunestad, 2017). As *sites of emergence* and formation, Nyquist et al. (2017) contend that in these assemblages – industries, entities and others *come into existence* or *become visible*. Like other field sites, events are nodes in complex assemblages and “being there” requires taking part in face-to-face interactions both formal (e.g., presentations, roundtables, breakout session, workshops, etc.), as well as informal (e.g., mixers, diners, registration desks, parties, exhibits, etc.) (Dahlén, 1997; Nyquist et al., 2017; Cook & Ward, 2012). These *globalizing micro spaces* (Larner & Le Heron, 2002) assemble people and places into a *relation proximity* (Amin & Cohendet, 2004) that enable comparison, learning and even competition. For McCann,

these spaces are where: globally significant best practice is deployed and discussed, where lessons are learned, where trust is developed, where reputations are made or unmade (reputations of best cities, successful policies and ‘hot’ policy gurus), and where acquaintances, or ‘weak ties’, are made among co-present conferees, thus connecting what would otherwise be socially and spatially isolated policy communities (2011, p. 118–19, as cited in Cook & Ward, 2012)

Although conference ethnography is different from more conventional approaches to ethnography, as fleeting yet enduring sites of materiality, knowledge and communication, these

⁶⁴ While not detailed in this dissertation, in tandem with my field work I have also conducted a two-year conference ethnography in the placemaking sphere. Beyond my dissertation work I will be continuing this project for the next three years as part of a longer ongoing project on conference ethnographies.

events offer important insights into the mobility of policies and practices. These events often provide insight into or should be read alongside the broader context, history and networks of these organization and local sites (Nyquist et al., 2017).

From April 2017 to September 2018, I attended nine industry conferences and workshops. These varied from large international conferences and summits, to small (sometimes exclusive) workshops and meetings. Also, part of a larger five year project on conference ethnography concerning BIAs and placemaking organizations, this work is still on-going.⁶⁵ For the purposes of my dissertation research, at these events I engaged in participant observation and preliminary networking, in order to: learn more about the organizations in-person, build rapport with participants and the BIA community, recruit interview participants, and broker formal field site access (see Lincoln, 2000; Odendahl & Shaw, 2002). However, beyond aiding in site selection, conferences served as critical places for my own learning and data collection. Much of this preliminary research was used to “put things on the record”, tailor interview guides,⁶⁶ as well as situate particular practices in a broader North American context. For example, demonstrating *value*, a guiding through-line in this project, was a central and persistent theme at many of the conferences.

While many of these conferences offered detailed proceedings packages to attendees (e.g., digital copies, recordings of presentations, maps, pamphlets, reports, etc.), at these industry events I observed, participated (when necessary) and took fields notes. Referred to by Emmerson, Fretz and Shaw (2011) “as participating-in-order-to-write”, I paid particular attention

⁶⁵ As one of my on-going projects, I plan to use this data in order to write a manuscript on conference ethnography, trans-urban policy pipelines, and traveling places and expertise. As well, a forthcoming chapter focuses on the role of BIA staff in the mobility and “activation” of places and placemaking (see Mackinnon, forthcoming).

⁶⁶ For example, conference presentations from FDBIA were fundamental to data collection in Chapter 5. While critical experiences for brokering access, especially in Toronto, notes from conferences (as well as documents, news media and other secondary data) were used to strengthen an specify interview guides. Similarly, data from conferences, especially surrounding data collection and matters of concern informed much of Chapter 6.

to initial impressions, significance or unexpected events (e.g., presentations, technology demonstrations, etc.), what the actors found significant or important, the involvement of public organizations and private industry, actions of specific BIAs, variations and patterns between events, physical layouts, etc. After events, I used my jotting from the day to write fieldnotes and memos, which detailed thick description and included first and third actor accounts.⁶⁷ While Denzin (2001) posits that “description is the art of giving an account of something in words”, in line with the aforementioned methodological position, I also acknowledge that translation, narration and textualization serve to perform, enact and *make* our worlds (Geertz, 1973; Law & Urry, 2004). The vignettes I have included at the end of this chapter and beginning of Chapter 8 offer insights into these sites of circulation and emergence.

4.2.3 “Arriving at” Toronto and Vancouver

Based on Flyvbjerg’s (2004) information-orientated approach, document collection and conference attendance aided in the selection of and access to case study sites. The third “phase” of this project involved *in-depth case studies* and multi-sited ethnography in BIAs in Vancouver, BC and Toronto, ON. Field work for these case studies primarily took place between April 2017 and March 2018. And this phase of research, informed by the distended case approach employs ethnographic methods including: interviewing, participant observation and work-shadowing in order to provide rich and thick qualitative data.

⁶⁷ Some of these accounts have been used in the composite vignettes found throughout this document (see vignette at the end of this chapter)

Toronto

Toronto offers a critical and instructive site for the study of BIAs. Not only the “origin point” of the BIA model, it remains a global leader in the BIAs realm with the highest concentration of BIAs (83) in any city. In order to study the adoption and use of GeoPal, this case study focused on the apps users, who are three of the largest BIAs in the City: the Toronto Entertainment District (TOED), Financial District (FDBIA), and Downtown Yonge BIA (DYVIA).

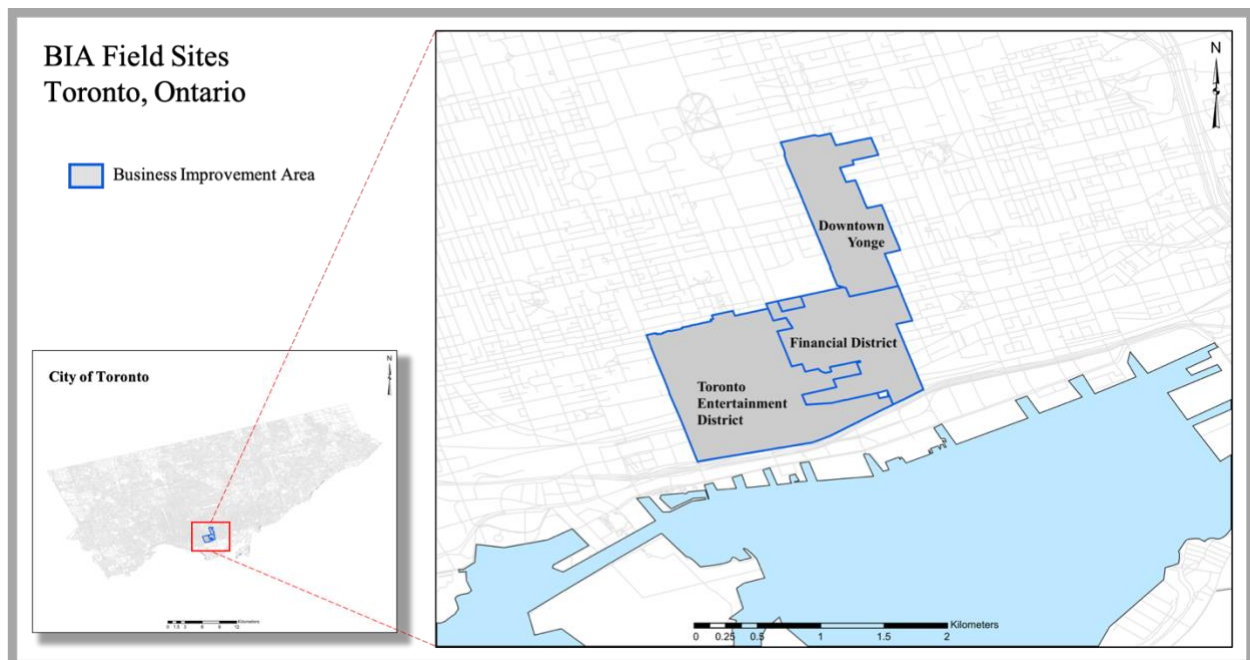


Figure 6. Toronto BIA Field Sites

In this site, I conducted interviews (15), work-shadowing (5), in addition to regular participant observation in the BIAs. This involved frequent trips to Toronto between April and September 2017 (approximately bi-monthly, 2-4 day trips), as well as numerous visits from September 2017 to March 2018 for follow-up interviews, participant observation, and conferences and workshop attendance. Specifically, I conducted interviews with city employees (5), app representatives (3), and BIA staff (7).

Vancouver

Vancouver, while a late adopter of the BIA model is an important node in the regional and national and international BIA networks. The city boasts one of the largest BIAs in North America and has also been one of the central innovators in BIA trans-urban policy pipelines. There are 22 BIAs in the city; however, in order to focus on app adoption and keep congruent geographic bounds between cases, this case-study focused on five downtown BIAs: Robson Street, Downtown Vancouver (DV BIA), Hastings Crossing (Hx BIA), Strathcona (SBIA) and Hastings North (HN BIA).

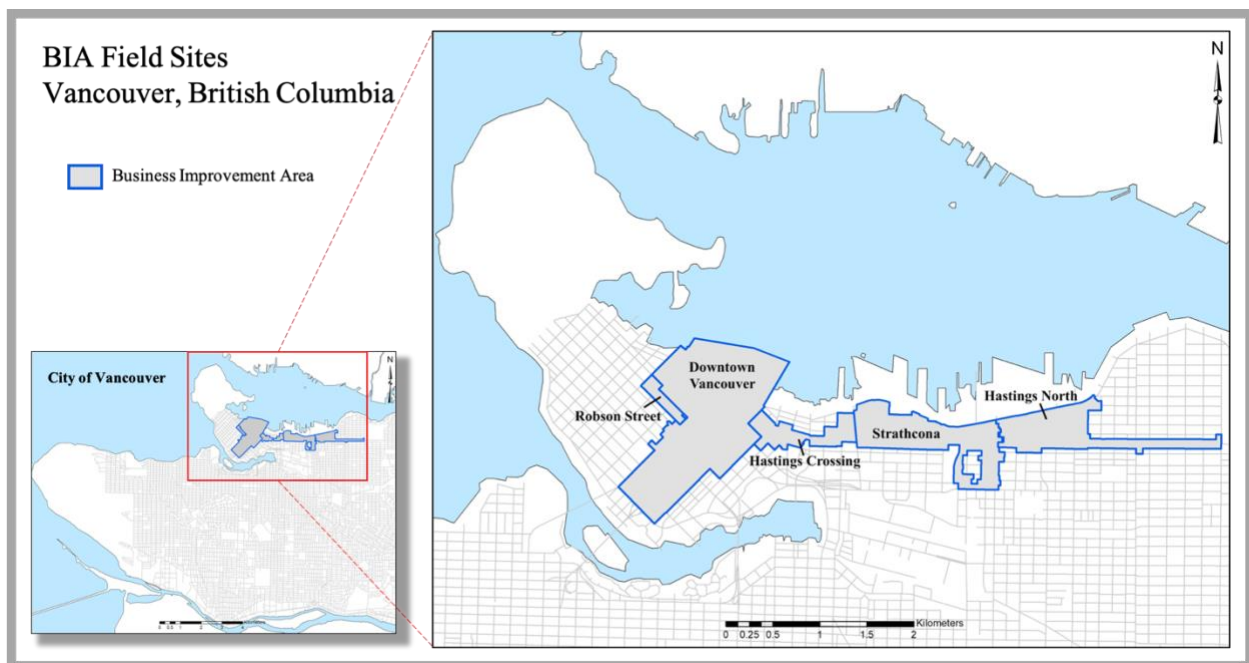


Figure 7. Vancouver BIA Field Sites

As detailed below, in this site I conducted interviews (20), work-shadowing (5) as well as participant observation in the areas. This involved five trips to Vancouver during April 2017 to May 2018 (each trip was between two weeks to one month in duration). Specifically, I conducted interviews with city employees (8) and BIA staff (12).

4.2.4 Interviewing “Elites”

Interviewing is congruent with an ontological and epistemological position that recognizes knowledges, views, understandings, interpretations and interactions as meaningful properties of reality, which can be investigated through dialogue (Mason, 2002). This dialogue offers a means of accessing data about practices and processes that might be otherwise inaccessible. Although reliant on building rapport with interviewees, through probes, elaboration, clarification and repetition, meaningful data can nevertheless be collected (Mason, 2002). For some, interviewing may incorporate particular forms of bias, while for others it positively implicates the active and performative role of the researcher. For example, Walby (2005), suggests that interviews, when combined with texts, offer critical insights into how surveillance or policing is put into practice.

German to this study, “elite” *interviewing* has become a common method. In comparison to more “standard” forms of interviewing, this method may require greater rigor and knowledge of the interviewee’s context, stance and previous behaviour (Hochschild, 2009). This method can be used to: 1) supplement other forms of collected data with individual insights; 2) establish what a set of people think, and make inferences about a characteristics and decisions of larger populations; 3) reconstruct an event, process, or set of events; and 4) disrupt hegemonic discourses and open productive dialogues between academics and elites (Kezar, 2003; Tansey, 2009). In other words, results of elite interviews can have powerful shaping effects on contemporary life (Briggs, 1996, 2002). For example, Tansey (2007) suggests that,

Elite interviewing can [facilitate] the process-tracing method and in providing the kind of data that can be critical in uncovering the causal processes and mechanisms... Process-tracing requires data collection on key political decision-making and activity, often at the highest political level, and elite interviews will frequently be a critical strategy for obtaining this required information. While their corroborative function should not be under played, it is their additive role that is most relevant in association with process-tracing (p. 767).

A reoccurring methodology debate between objectivists and constructivists, some argue that between interviewer effects, bias, and social desirability, interviewing enables a very limited range of data collection (Cresswell, 2009). Furthermore, interviewing may provide a weak means of accessing experience, as these accounts can be constructed, reconstructed, and are limited by the ability to verbalize, interact, and remember (Mason, 2002). The use of elite interviewing can also pose specific limitations to research: 1) due to the sample size individual respondents who do not want to participate are hard to replace; 2) researchers are often reliant on the willingness of elites and gate keepers; 3) there are unequal power dynamics between researcher and interviewees; 4) elites may be prone to interview fatigue and memory lapses; 5) elites may use interviews to further institutionalized agendas (Briggs, 2002); 6) interviewees may misrepresent their own positions, calling into question their credibility (Tansey, 2009); and 7) policy-makers are often incentivized to slant their accounts to portray a “careful, multi-dimensioned process of policymaking” to the public (George & Bennett, 2005).

For this project, I conducted interviews with: Toronto and Vancouver -based BIA executive directors, program managers, and staff; members of BIA board of directors and member business owners; municipal planners, engineers, and BIA coordinators; municipal and provincial elected officials; municipal and provincial police officers and BIA liaison officers; and technology and application developers and sales staff. In particular, I focused people and organizations concerned with and knowledgeable about BIA data-driven practices, operations and administration, and policing and security.

Specifically, I conducted individual and small group, face-to-face, semi-structured interviews (as well as 2 phone interviews). All interviews lasted between 1-4 hours (most were about 1-1.5 hours) in length, and took place in BIA offices, City meeting rooms and coffee

shops. Interviews were audio recorded and the data was transcribed into a word processing document. While I initially used NVivo, after narrowing my project, documents were also printed, collated, and coded. On the first reading I used line-by-line coding and memo writing to trace practices, themes, and discourses (Snow, Morrill & Anderson, 2003; Van den Hoonaard, 2012). The second reading included colour coding of emergent themes, actors and discourse. And on the third reading, I underlined key and exemplary quotes, which were used in the empirical chapters. These time-stamped quotes were later crossed check against original audio recordings.

4.2.5 Participant Observation in the BIA Sphere

Participant observation is congruent with an ontological and epistemological stance that views interactions, behaviours, and the interpretation of these actions as meaningful (Mason, 2002). As a method, it can broadly provide insights into how practices and processes are enacted.

Employing participant observation may be the most pragmatic means of accessing data about some practices and processes which are not kept “on the record.” Participant observation gives the researcher in-depth, immersive and first-hand experience of events (Creswell, 2009). By being *in the action*, a researcher can record events as they unfold (Creswell, 2009). Also being on site for longer periods, may enable a researcher to build rapport with community members; thereby facilitating involvement in unscheduled events and activities they may not have been invited to otherwise (DeMunk & Sobo, 1998). With this access to backstage culture (DeMunk & Sobo, 1998), this method provides researchers with a means of examining practices and *getting a feel* for organizational dynamics, priorities and how various actors interact (Schensul, Schensul, & LeCompte, 1999).

However, participant observation can also be a limited form of research for *following* practices. In some cases, following these processes and practices is impossible as they are black-boxed – taking place behind closed doors, on private property, or in databases and algorithms (Latour, 1999; Pasquale, 2015). Similarly, gaining access to a field site, and attempting immersion can be a time-consuming process. While labeled by some as an unobtrusive method, others argue that the intrusion of the researcher into the site may catalyze events (Creswell, 2009; Mason, 2002). Like critiques waged at other ethnographic methods, those using participant observation are often prone to overestimating empathy or a shared understanding (Mason, 2002). For example, Kemple and Huey (2005), highlight the performative and generative role of researchers,

At the risk of being positioned as an agent of social control or targeted as a subject of surveillance, the researcher assumes a position within this circulating flux of observers observing observers being observed. There is a sense in which modern social science and modern surveillance were each from their earliest days a means of ‘keeping tabs on the mobile,’ and yet today both are components in a much larger assemblage and part of the flow (pp. 154-55).

Their research also foregrounds ethical implications of participant observations. In the case of observing broken windows policing on “skid row”, Kemple and Huey (2005) recognize how their own practices of watching and surveillance, reinforce and further marginalize street populations. By extending these discussions to methods studying up, I argue it is critical researchers are accountable to participants and communities; moreover, that we do not lose sight of *larger ethics* and our role in the performance and production of surveillance.

From April 2017 to May 2018, I routinely visited field sites for data collection. Informed by Musante and DeWalt (2010), Jorgenson (1989) and Whyte (1984), in various capacities, as a researcher, tourist, local, student, shopper, etc., I wandered around the BIAs for hours on end. During these site visits to engage with the space and follow the actors inhabiting it, I used a

variety of practices including observation work, field notes, journaling (video and pictures – only with explicit permission).

In both case studies, I also conducted work-shadowing of BIA and City staff. The length of these observation experiences varied between three and eight hours and they primarily involved following executive directors, security personal, ambassadors and travelling technocrats during their daily activities. For example, I *followed* them as they walked, drove, engaged with membership and the public, and conducted office work (e.g., entering data, meetings, demonstrating software). In keeping with an “unobtrusive” approach, I refrained from asking questions during work-shadowing research. However, in most cases during these *tag along* experiences the researcher-interviewee-dynamic switched, as participants asked me plenty of questions and engaged in small talk. During these work-shadowing experiences, I took limited notes and only with explicit permission. The vignettes I have offered at the beginning of Chapters 5 and 6 are composite accounts from these work-shadowing experiences.

4.3 Data Analysis

As mentioned above, all texts, interview data and notes were collated, transcribed and coded for key words, phrases and subjects. I used both digital⁶⁸ and analogue coding practices, and as well as multiple analytic methods that included content and critical discourse analysis (CDA). The resulting texts, treated as sources of factual information, performances and enactments, which helped to trace connections to wider contexts. For information on identification, anonymity and data storage (see Appendix A).

⁶⁸ While I initially used NVivo for data management, retrieval, and coding, after further narrowing my cases I ended up doing a fourth round of coding and working with hard copies.

4.3.1 Critical Discourse Analysis

Grounded in hermeneutics and semiosis, CDA sees discourse⁶⁹ as a form of social practice (Fairclough & Wodak, 1997; Van Dijk, 1993; Wodak, 2008). Fairclough (2009) defines social processes as the interplay between various levels of social reality, which is comprised of social structures, social practices and social events. Therefore, language, as a social practice, serves to mediate relationships between general/abstract structures and particular social events (Fairclough, 2009). In other words, it requires *multidisciplinary* and a critical understanding of relationality – specifically an appreciation of the “intricate relationships between talk, text, social cognition, power, society and culture” (Van Dijk, 1993, p. 253). Similar to transformative data collection practices, CDA challenges power and positions which “enact, sustain, legitimate, condone, or ignore social inequality and injustice” (Van Dijk, 1993, p. 252). As expanded upon in Chapters 5-7, this project challenges normative (e.g. business- or market-centred) understandings of *value*, *accountability* and *responsibility*.

Fairclough (2009) suggests that there are three ways in which semiosis relates to the social – namely: facets of actions, representations of the world, and constitutions of identity. These social semiotics are then respectively categorized as genres, which are ways of acting and interacting; discourses which are ways of construing aspects of the world; and styles are identities and ways of being. Fairclough (1992) refers to the semiotic dimensions of social practices as orders of discourse and the semiotic dimensions of events as texts. Focusing on orders of discourse as particular configurations of different genres, discourses and styles, Fairclough examines the

⁶⁹As outlined in Wodak and Meyer (2009) CDA has numerous followers and forms. For this project I will be using Van Dijk, Wodak and Fairclough’s conception of CDA. Fairclough (2009) defines discourse as “(a) a meaning making as an element of the social process, (b) the language associated with a particular social field or social activity, and (c) a way of construing aspects of the world associated with a particular social perspective” (pp.162-163). While raising questions about the ideology and discourse, CDAs commitment to social justice and multidisciplinary approach aligns with the aims and approach of this project.

operationalization of discourse – in particular, how discourse is put into practice, enacted, inculcated, materialized and recontextualized. Recontextualization refers to the process of colonization of a field or institution by another, as well as the incorporation of strategies pursued by particular groups of social agents within the recontextualizing field (Fairclough, 2009).

By conceiving of discourse as dialectic, Fairclough suggests that discursive events shape and are shaped by social structures (Fairclough, 2009). “That is, discourse is socially constitutive as well as socially conditioned – it constitutes situations, objects of knowledge, and the social identities and relationships between people and groups of people” (Fairclough & Wodak, 1997: 258). Therefore, discourse is more than semantic – it is socially consequential. Discursive practices produce and reproduce unequal power relations and they provide avenues for change (Fairclough & Wodak, 1997; Fairclough, 2009; Wodak & Meyer, 2009). Illustrating this connection between theory and methodology, Jessop (2004) maintains that the “semiotic dimension is fundamental to re-structuring and re-scaling, in the sense that these processes are semiotically driven” (as cited in Fairclough, 2009).

Fairclough suggests the first stage in CDA is to “focus upon a social wrong in its semiotic aspect” (p. 167). Fairclough (2009) conceives of social wrongs as “aspects of social systems, forms or orders, which are detrimental to human well-being, and which would in principle be ameliorated if not eliminated [through major changes in these systems and orders]” (p. 167). He suggests first choosing a research topic that can be theorized in a transdisciplinary way – that is, to not only work with various bodies of social theory and research, but also synthesize and include often neglected semiotic dimensions (Fairclough, 2009). The second stage is to “identify obstacles to address this social wrong” (Fairclough, 2009, p. 169). This indirect means of approaching the research question involves an analysis of dialectic relations between semiosis

and other social elements, a selection of texts and categories for analysis, and an analysis of texts (Fairclough, 2009). Analysis involves a close examination of semiotic strategies, semiotic categorizations, genre networks, linguistic characteristics, argumentation structures, logic, personal deixis, interdiscursivity, recontextualization, operationalization, and politicalization (Fairclough, 2003; Fairclough, 2009; Wodak, 2008). After this analysis, stage three “[considers] whether the social order ‘needs’ the social wrong” (Fairclough, 2009, p. 181). Critiquing liberal and neoliberal ideology, Fairclough (2009) examines the discourse surrounding the necessity of these dominant and unequal power structures. Lastly, stage four attempts to “identify possible ways past [these] obstacles” (Fairclough, 2009, p. 163). In doing so, analysis shifts from negative to positive, identifying possible entry points into further research that indicate how obstacles are tested, challenged, reacted to, and resisted (Fairclough, 2009).⁷⁰

4.4 Being in the Field: Reflexivity, Accountability and Positionality

While sitting in a stuffy windowless conference room in large downtown Winnipeg convention centre, my position in and on the field was made *visible* – literally. In the middle of writing down notes, I glanced up at the screen and thought to myself “that looks oddly familiar”.

⁷⁰ Arguably genealogy or a more agnostic form of discourse analysis would have been a more ontologically congruent approach – as discourse as ideological ascribes particular power relations and understandings of rationalities. While question of “when” politics and critique are enacted, may be temporarily different similar politics and methodological comments are found throughout this approach (e.g Kezar’s transformative elite interviewing, or Law and Urry’s research as world making, etc.).

MP Neighbours Patrol

- Social enterprise neighbourhood security that ensures community safety.
- Creates employment opportunities for local residents with barriers.
- Cultural sensitivity for area.
- Preventative model — alleviates escalated situations and cost for first responders.
- In 2016, MP Neighbours:
 - disposed of over 62,000 used needles
 - reported and ensured the removal of over 281 illegal garbage dumps
 - safely and appropriately dealt with over 1661 community engagement referrals and hostile situations



#IDAWPG17

Figure 8. *Me "in" the Field* (HxBIA, 2017)

Listening attentively, as a familiar executive director explained their community orientated mandates and social enterprise program, I realized “oh wait, that is me”.

I reflected on the walk along from a couple months previously, as did the executive director, “This is the program, I’ve walked with our team as well. That’s actually Debra. She is actually sitting right there. She’s a researcher from Queen’s and came to look at our program...” they stated to a room of 40 participants.

So, there I was, not visible not in the sense of “revealing my identity” or suggesting I was “undercover” – all of my interviewees and other conference attendees that I engaged with knew I was a researcher and what I studied. But this *visibility* gave me pause on my own position and impact in and on the field.

While traditional discussions of methods may claim low levels of intrusion, especially in terms of participant observation, surveillance scholars and others have long noted the impacts of watching and studying (Ball & Haggerty 2005; Huey & Kemple, 2005; Monahan, 2010).

Moments like the anecdote above became frequent occurrences throughout my fieldwork and on-going involvement in the BIA community. From “X wants to speak to you” to “can we get your input on this document”, I regularly found myself reflecting on my own formative and shaping effects – in both a practical, ethical and accountable sense, as I navigated and enacted the social.

However, beyond exercising reflexivity, my aim was to be accountable (see Kenney, 2015).

Informed by Kezar (2003) and others, it was never my intention to be *unobtrusive*, studying-up has been central to my longstanding research mandate. As explained in the preface, my interest in BIAs stems from their tangential connection to, or role in the criminalization of dissent in Canada (see Mackinnon, 2014, 2018). With BIAs providing resources to local police and even giving testimony at the House Standing Committee on Justice and Human Rights in support of anti-masking legislation, I've long been curious about their *not so mundane practices*. While in 2014, I may have conceptualized these practices as scope creep and advocacy – guided by a strong empiric conviction and unwillingness to assume what the social was from the outset – I embarked on this project interested in the legislative mandates and circulating practices of BIAs. *What are the matters of concern to these organizations, and what are they doing?* In other words, rather than trying to watch from the outside, in order to follow the actors, I attempted to embed myself in the community, and ask how I could get involved.

For the most part, my involvement was accepted and at times encouraged. Conferences were formative opportunities to hear from BIA experts about the challenges they face as well as their own innovations and remedies. As different vantage points into the assemblage, these interactions and engagements with the trans-urban policy pipeline were both critical sites for learning and brokering access. For example, these corporate and professional settings enabled me to learn more about the work of BIA in an organizational sense from practitioners, and hear firsthand about what BIAs were working on. Many appreciated that I was there to listen and understand their work outside of specific geographic bounds. Furthermore, these face-to-face interactions, demonstrated my desire to listen and follow, but also were opportunities for me to talk more about my research and even assuage concerns. Not only did I get to know “the field” – albeit presented to me at some points with DJs and a light show – but I also became a *known*

entity. Conferences, despite, costly barriers to entry and persistent feelings of outsider status, were important for sustaining on-going dialogues. For instance, securing interviews was much easier, at least in the BIA sphere, after these conferences. As various organizations “got to know me”, in some cases this meant later commenting on public facing documents, answering questions about alternative practices and models, engaging in discussion, or attending other conferences and workshops.

However, on occasion my involvement was met with some skepticism and non-response.⁷¹ In order to increase participation, I tried to promote accountable relations. While wanting (and also being asked) to participate and be involved – which at conferences meant engaging in social activities⁷² – these experiences left me reflecting on the appropriate behaviours of researchers in the field. Transparent about my own politics and position, the more time I spent getting to know BIA and City staff, the more pragmatically attuned I became to the limits, mandates and goals of these organizations. A point of discussion in my conclusion, while reflecting on BIAs as market devices and multiple objects, beyond exercising reflexivity, my aim was to be accountable to the broader community, the accounts I have collected, and the assemblages I have traced and enacted.

As Kenney (2015) notes while reflexivity foregrounds the self and responsibility, accountability positions the self in relation to a *collective*. Therefore, as a researcher asking,

⁷¹ As discussed in my concluding limitations section, while I had a high response rate, the two organizations who declined interviews were both with the City of Toronto. Both stressing high workload and directing me to their web content, I have speculated as to why City officials may not have wanted to participate. Arguably not a resident of Toronto, and interviews considered “above their paid grade” (as one said to me), I was interested in the lack of accountability from the City, especially in relation to their obligations.

⁷² At one of my first BIA conferences, I found myself asked to play a sponsor-lead game of trivia. I recused myself from prizes and asked the other attendees if they were comfortable with me playing. With lively comradery and 15 questions about Canadian history, the game winning question hinged on singing the National anthem in French. In a large room with people mostly from the West Coast of Canada, alarmingly (for those familiar with my French) I was selected by my team to play for the final question and ended up winning street lighting for others on the team.

“what does accountability look like on the ground”, being accountable required asking the same question of myself and my research. This symmetrical approach not only highlights how value is calculated and enacted in everyday life, but the forms of knowing, caring and world making it extends (Kenney, 2015). Rather than looking like an audit, accounting can be analogous to story-telling (Kenney, 2015). The preceding chapters as forms of praxiography (Mol, 2002) “stories about practices”, offer another account of practices and process between actors and events.

Concerned with following actors, and letting them speak for themselves, Forsythe (1999) also notes that “being heard” is rarely discussed in relation to elite interviewing. For public figures, often in positions of power and able to access various means of voicing and amplifying their own concerns, studying-up may also pose professional risks to both participants and researchers. Although I obtained consent to use names and affiliations, throughout the document I have used titles and where possible decoupled positions from specific BIA affiliations, in order to be accountable to both my participants and the broader community. While in places challenging practices, the insights offered in the remainder of the document foreground points of pause, reflection and suggest alternatives. Not indicative of my overall experience, or more importantly discussions with the app developers I interviewed, the following vignette nonetheless reflects some of my encounters in the field, especially surrounding power, gender, and age – what I have chosen to term, *mansplaining as method*.⁷³ As a young, female often navigating tech and corporate spaces, the power differential between myself and participants was not necessarily what I was expecting.

⁷³ With a keen interest in offering methodological contributions to STS and surveillance studies, based on my conference ethnographic work as well as previous work in tech space, this is the topic of an in-progress manuscript.

I found myself standing by a smart city kiosk at a tradeshow. My name tag accidentally overturned and dressed in professional conference attire, I stood next to this towering IoT enhanced screen, attempting to scan the QR code, connect my phone, and explore the marketed integrated features.

In the depths of the generic large-scale conference hall, covered with garish wall paper, dim lighting, and overburdened routers hanging from the ceiling, I stood there unclear about this demo. I turned the provided conference Wi-Fi off and attempted to use my own data to try and get this “immersive” experience to load. Behind me stood the vendor. “Do you have Wi-Fi turned on?” he asked. Before I could even say that I thought the venue Wi-Fi was down, he had grabbed phone out of my hand. With a slight look of bewilderment across my face, I gestured I wanted my phone back, as he proceeded to navigate through my settings and closing apps. Without asking, he turned my phone off and on not really talking to me, and the whole time mumbling something about iPhones and misplacing his own demo phone.

At this point, over the initial shock of a stranger usurping my phone and connecting it to my tech-conference experiences more broadly – I leaned in, curious to see how this scenario was going to play out. Four minutes in with the vendor still fumbling and trying to hook it up to this IoT, I was reminded of various discussion of *when technology fails* but glancing around the room of predominantly white men in business casual, I was reminded of something else.

“Mark, our hot spot is down and the Wi-Fi is out”, he called out to one of his colleagues from the other side of the booth. Hoping this obvious revelation would win me back my phone I asked, “Not to worry, but tell me more, how is this supposed to work?” Almost unphased by his colleague’s comment and my question, he turned to me, “Well, let me tell you how this should have worked” he said exuberantly, switching registers to a sales voice.

Still holding my phone and feeling like a captive audience, he recounted the features of this kiosk. Almost verbatim, he rattled off the generic, “real-time capabilities”, “way-finding features”, “connections and Wi-Fi hotspots”. And I say almost verbatim, since I had read their website and case study earlier in the morning before going to the tradeshow.

“This way-finding kiosk would be great for your district, think about all the advertising opportunities or how you could you could incorporate it with your social media campaign. Oh, and best of all for your director it’s not going to break your piggy bank, cause its free”, he stated almost gleefully with a mix of the usual sales pitch and a particularly condescending slant. I offered a half smile, realizing the various assumptions he had made about me and the few other young women at this conference. Something like “she is either in social media or marketing.”

Furthering my disingenuous smile and grabbing back my phone. I turned to him, “So ad revenue, that’s how you make this free? That’s where your profit is on this?” His tone quickly changing, he began to explain the procurement process to me.

Chapter 5

Asset Management, Agencies and Accountability

After an interview, we left the BIA office conference room and the executive director turned to me, “Come back Monday and you can follow one of our clean team members around.”

It was 9:30 am and I’d parked the rental car in an all-day lot in downtown Toronto. Walking out of the depths of the garage, I made my way to outside the BIA office. It was early spring, and the shadows of the tall towers made it a bit cold as I waited for a program director and their contracted asset management employee to arrive. After introductions, we started out on his usual route. We had not walked more than a block, when he stopped and pulled out the company phone, an Android with a rugged case.

“That bin door is broken, I need to log this”, he stated and paused, fiddling with the broken latch on the door, “well I guess this is what you wanted to see?”

“Yes!” I replied eagerly responding to the hesitation and skepticism in his voice. “I’ve had a couple of office demonstrations, but I’m excited to see it in action,” I explained as I looked over his shoulder at the phone. He tapped it couple times bringing up the GeoPal interface and showed me the tagged asset on the map. I moved out of the way as he took a couple of pictures of the bin and zoomed in on the broken latch. He walked me through the call of service form, populating and explaining it box by box. “And that’s how you do it, make sense?”

I nodded, and we started to walk again, but not too far as a graffitied mailbox down the street caught his eye. We stopped, logged it and moved on. A couple steps away he tapped the app again, “I logged that last week”, he said pointing at the vandalized fire hydrant, “they usually would have fixed that by now.” From street poles to uneven paving stones we navigated our way around the area, sometimes haphazardly, logging new issues and following up on outstanding ones.

On our second loop we turned off a busy street. “I should probably log that car, it’s in the way”, he said noting a black sedan parked in a no parking zone. “I don’t log many cars during the midday shift, we deal with parking violations in the morning. Well mostly that and logging homeless people and panhandlers. Get stuff out of the way before people are coming into work.”



Figure 9. Toronto Streetscape

5.1 Creating and Maintaining Value: Assetization

A 2017 report commissioned by the OBIAA called on municipalities to formally recognize the “enormous contribution [of BIAs] to the economic, social and cultural health of [...] communities,” and stressed the importance of quantifying BIA contributions in order to improve on accomplishments (Mathews, 2017).⁷⁴ Emblematic of broader benchmarking and standardization practices, BIAs have sought to better measure how they manage and create value. For example, the OBIAA report outlined 30 indicators which could be used to demonstrate ROI in terms of: street appeal, economic development, the support of small business and community building. Specifically, streetscape and façade investment, placemaking, visitor experience, actual event attendance, conversion rate, average dwell time within the BIA, and quality of life measures and perceptions, were recommended as useful indicators of street appeal (OBIAA, 2017). Asset mapping was positioned as a visual tool to measure these indicators and benchmark the physical and social qualities of the area (OBIAA, 2017, p. 5). The report recommended creating a map of the “total number of street benches, lampposts, garbage cans etc., [which could] be combined with statistics on public art, parkettes, natural features, places of worship and key businesses to provide a full picture of the assets of that district.” (OBIAA, 2017, p. 5). Connected to notions of big data urbanism and an epistemic culture of accounting, it was argued that through identifying and counting these data demonstrated a BIA’s organizational value. Despite existing *use* and *exchange* values, to conceptualize and measure value in relation

⁷⁴ This report was the theme for the 2017 OBIAA conference. As one of my first conference experiences, I was struck immediately by the focus on market logics and value throughout the programing. Furthermore, the report, toolkit and surrounding experts (i.e., the FDBIA and TOED features heavily in it), became central to this case.

to aforementioned mandates, things underwent a process of *assetization*⁷⁵ (Birch, 2017).

According to the report, assetization or,

The determination of assets can be completed by the Board of Management or through a membership survey, and supplemented by municipal infrastructure data. This sort of tool could be kept up by the BIA executive and shared with government partners and the broader membership to show ROI.

Resulting in detailed maps and plans of their areas, boards and membership were recommended to engage in series of political, economic and technoscientific practices in order to constitute and configure value (Birch 2017; Miller & O’Leary, 2007). This performative management of value solidifies managerial and entrepreneurial logics, and reaffirms programmatic ambitions to increase efficiency, growth, competitiveness and improve decision making (Miller, 1998, 2001).

As explained by an administration and operations manager pioneering asset mapping and management in Toronto,

We did an objective analysis of what the district’s needs are from an operational perspective and from an aesthetic perspective. It’s very easy to choose one or the other, but we really wanted to focus on both. We then outlined a plan and how we were going to take it on a street by street basis, address the specific needs unique to each street, and bring them up to a higher standard.

The utility of assetization and resulting valuation practices was twofold. By mapping their area, not only were they able to visually demonstrate their underacknowledged role in its maintenance, but they were also able to chart a course for improvement. This asset-based *framing* (Callon, 1998; Callon, et al., 2002) of relations in the area assembles or represents what is *governable* (Lapsley et al., 2010). These programmatic ambitions are made operable through “a multitude of

⁷⁵ For some, valorization might have been a more straightforward term to use, especially given the numerous references to value and valuation. To some degree, parallels between assetization and the creation of surplus value and circulation could be drawn. However, 1) to maintain a level of ontological congruency (e.g., the role of technology is considered very differently under the labour theory of value), 2) foreground valuation as a social practice, and 3) given the disparate meanings of valorization (see: Vatin, 2013) or value (Appadurai, 1988), I have opted for the term assetization, especially since it evokes market logics, counts and accounting (other key terminology in this chapter).

devices, instruments, apparatuses, calculations, documents, procedures and so forth” (Lapsley et al., 2010, p. 309). Assetization enables areas to become *more* knowable, or rather known through a narrow range of assets. These synecdochal ways of knowing, and therefore governing, make public realm mandates more manageable and doable. In other words, by transforming banners and benches into assets through valuation practices, their *qualities* become more amendable to particular forms of improvement – maintenance and innovation.

Rather than black-box “improvement” in this chapter, I explore the use of an asset management application by three Toronto BIAs to make their public realm improvement *doable*. Predicated on assetization, I theoretically and empirically examine how two valuation practices – counting and accounting – render and assemble the area in terms of important constituents. I argue that these (ac)counts when transformed into tellable stories better enable BIAs to align constituents and constituencies to foster accountability across their constituency, as well as craft compelling stories that further perform the management and innovation of value beyond their areas.

5.2 Which Agency? What Constituency?

In order to address aforementioned operational and aesthetic challenges, BIAs have sought to leverage technology and data so as to innovate public realm maintenance, agency compliance and enforcement. Beyond merely mapping the district, assetization and resulting valuation practices claim to promote greater accountability. However, as illustrated in Figure 10, promoting these forms of accountability – or even determining whose job it is – is no simple feat. Rather, it requires navigating various overlapping forms of corporatized governance and complex assemblages that converge on city sidewalks. As detailed by Valverde (2012), from materials, law, labour, and institutions to the customary social practices that “govern the spatial

distribution and circulation of people and objects” (p. 28), these human and nonhuman actors are (re)assembled on the street. Focused on service delivery alone, as depicted in Figure 10, there are upwards of 12 agencies responsible for various urban assets, each with their own call for service procedures. As a window into street corner governance, this BIA created and distributed resource: 1) depicts responsibilities of public realm maintenance and improvement, 2) helps membership see their area in terms of assets, 3) identifies risks to those assets and areas for improvement, and 4) scripts particular remedies and results.

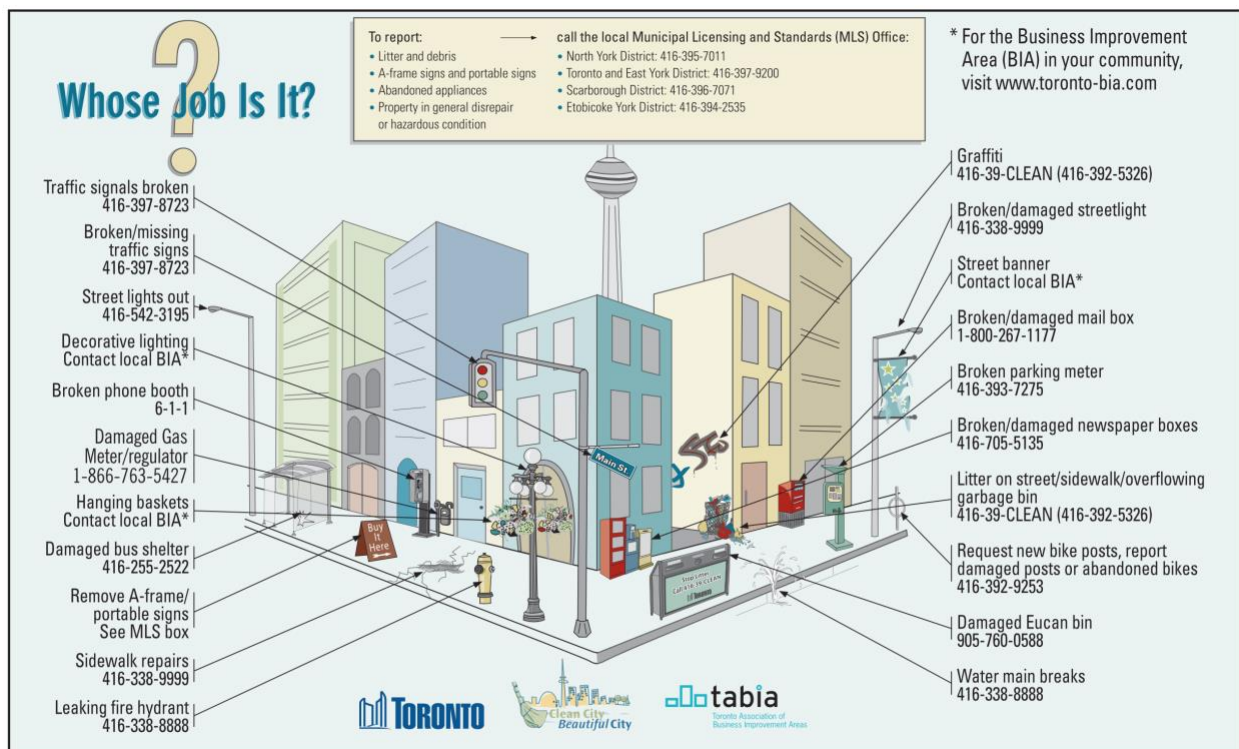


Figure 10. Whose Job Is It? (TABIA, 2010)

This depiction of assetization, or analogue *inscription device* (Akrich, 1992) lays the ground work for future scripts and technological innovation with assets. Working from these scripts, asset mapping and management is positioned as another tool for governance; networking various agencies, sharing data and information and improving service delivery. As summarized in the FDBIA’s 2016 submission to the IDA Downtown Awards, the networking of agencies and

pertinent data was key to their asset mapping innovation. Specifically, their asset management program was developed to meet several key objectives including: maintaining an order and history of public realm assets, reporting of publication boxes, parking and film permit compliance, and assisting the city's streets to home outreach team (FDBIA, 2016a). This submission not only documented their own innovation, but also served as a template for other areas to use (see section 5.7).

With the progress of technology, developing and adapting programs to utilize technology to provide solid data, mapping and evidence-based information rather than anecdotal evidence is paramount to a BIA/BID's ability to effectively advocate for solutions. Efficiency is improved through reducing manual collection and entry of data, systemizing reporting and quantifying results with standardized measurements built into the system. More useful, however, is the ability to use visual data and real-time information to collaborate with relevant parties to ensure accountability, improve service delivery and ensure issues are addressed as needs change over time (FDBIA, 2016a).

To this pioneering BIA, the standardization of data collection and analysis, and the technology that enables it, are understood to transform anecdotes into evidence-based information. Rather than transformation, accounts serve as both stories and explanations for conduct, as well as coded representations and records (Munroe & Mouritsen, 1996). This dual feature of accounts maps on to Lapsley, Miller and Panozzo's (2011) distinction between visioning/representing and calculating/intervening. For the BIAs, more effective counting and accounting practices have enabled them to create and manage value by promoting accountability and service delivery.

Enter GeoPal Solutions. Marketed as a higher-tech lower-cost platform, the Dublin-based company has carved itself an early niche in the BIA market. While initially developed for large enterprise field operations, the platform has been adopted and customized by BIAs for smarter urban asset management (e.g., IoT sensor integration, remote monitoring, automation and real time updates). Used by BIAs and analogous organizations in Canada, US, UK and some EU

countries, after separate RFP processes, GeoPal was selected by all three of the Toronto BIAs for asset management, albeit in slightly different ways.

Similar to its competitors, GeoPal is marketed as a cloud-based mobile workforce management application capable of location tracking, GIS and heatmaps, job scheduling and dispatch, mobile data capture, straight-through processing and 311 integration. As recounted in the opening vignette, BIA staff patrol the area with a GPS enabled smartphone and the GeoPal mobile app, filling out call for service forms, and capturing and updating information, such as: text, photos, GPS location, asset details, barcodes and RFID scans. The information captured on the phone is synced with the GeoPal web management system and filed reports are forwarded to the appropriate agencies. Managers and executive directors are then able to locate assets and their details on a map, as well as review, process and analyse collected data. As explained in the program's objectives, GeoPal digitizes existing analogue counting and accounting practices. By delegating their "convenor" role to the platform, valuation practices carried out by the app assemble/render the area and its constituents.⁷⁶

5.3 Rendering Assets (Ac)Countable: Seeing Like A BIA

The aspirational visions of areas, as well as their management and improvement, are entangled in a series of relations. As referenced above, making visions doable, making spaces governable, is presented as "achievable" and "measurable" through monitoring and (ac)counting.⁷⁷

⁷⁶ Extending Simakova and Neyland (2008) I use the terms constituents, constituency and constituencies – respectively referring to the individual, groups, and grouped-groups of human and nonhuman actors required to carry out a particular process – to add more precision to the concept of assemblage. In this chapter, which gradually builds to a discussion of alignment, the distinction between these terms and who and/or what is framed or included comes to matter.

⁷⁷ Counting here referring to the practice of enumeration. Through processes of assetization certain materials, places, and people are more easily rendered in terms of quantity or magnitude, that is, "countable". As this section builds "accounts" refers to what is produced as a practice of counting. Accordingly, accounting refers to the practice of producing impartial, quantified testimonies.

We monitor everything, let's put it that way. We monitor everything. I know how long it takes to rent out a 1,000 square foot space on Yonge Street versus a 10,000 square foot. From that data, I can tell you that anything from 1,000 to 3,000 square feet will be gone in three months, once it becomes available. And, I know that anything 10,000 square feet and above will take six months to a year to lease. We monitor everything in our area, so we understand what we are up against here.

To this chief operating officer, the entire space covered by the BIA becomes a series of assets with specific values attached to them, and data enabled the BIA to know what they were up against and act accordingly. This same ordering logic and epistemic culture of accounting was used to justify the adoption of asset management programs. BIAs as calculative devices, through quantification, calculation and numerical information assemble how their areas are represented, discussed and governed (Lapsley et al., 2010). In effect, the assetization of an area rendered it – “detectable, countable, recordable, tell-a-story-about-able, analyzable and account-able⁷⁸” (Garfinkel, 1967 cited in Neyland & Woolgar 2013, p. 33). Not necessarily a linear or teleological process, this string of adjectives describes objects, places, and people constituting the area. In other words, describing what, where and who belongs (or doesn't). Predicated on mandates connected to concern and mattering, *counting comes to matter* (Barad 1998; Latour, 2004). Through app delegated counting, these classifications of quantities and *qualities* are inscribed in infrastructure. For Callon et al., (2002), quantification renders qualities, which stabilize the product, and transform it temporarily. Presented as seemingly banal and mundane, moreover impartial when rendered by technology, monitoring and counting practices further entrench and naturalize ordering (Bowker & Star, 1999, p. 196). Practices of counting translate

⁷⁸ This particular quote while made in reference to ethnomethodology (the culturally-situated, ordinary, everyday ways of sense-making which render features *accountable*) as partially extended by Neyland and Woolgar (2013), account-able is also a useful heuristic referring to something that is able to give testimony. Things that can be counted more easily *give testimonies* because they are seen to be impartial accounts or surveys of a matter of concern (Latour, 2004). Matters of concern are by definition not impartial concerns. As detailed below, it is interesting that impartial accounts are used to “solve” matters that are partial – and only partially seen – by partial platforms.

matters of concern into *matters of fact* which through accounting and tellable stories may also become *matters of care* (or concern) (Latour, 2004; Murphy, 2015; Puig de la Bellacasa, 2017).⁷⁹ In other words, the use of GeoPal serves to render BIAs and their assets (ac)countable – but who or what (ac)counts?

5.3.1 Materials and Objects

In their 2016 report on “raising the standard” of the public realm, the FDBIA detailed the extent of their “street by street” asset mapping. A comprehensive view of their area, maps and counts reinforce a particular way of seeing, understanding and visioning the city. By detailing the components of the public realm (see Figure 11), as well as the assets on top of it additional and potentially more sophisticated counting practices are legitimized.

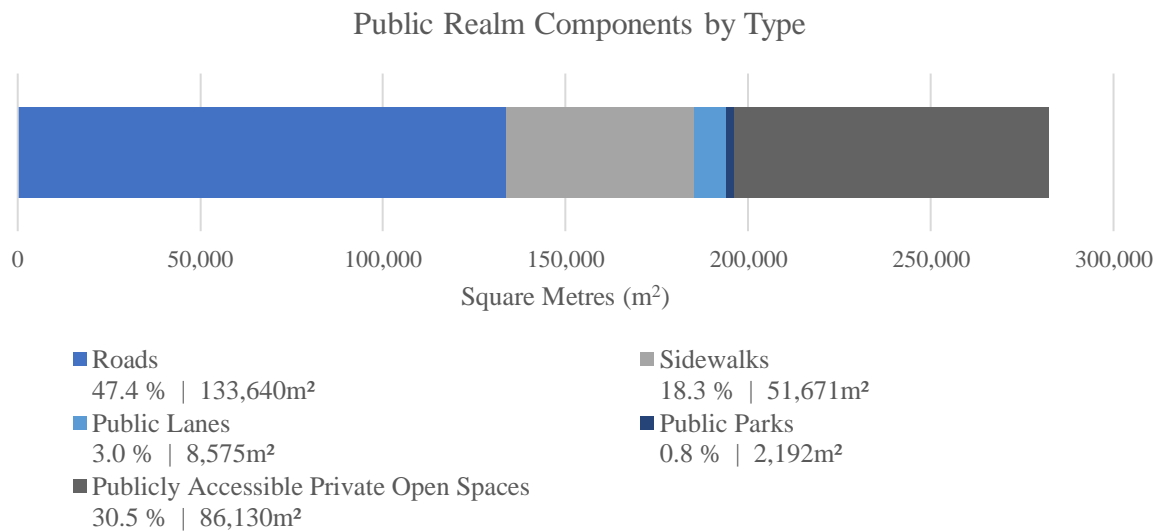


Figure 11. Public Realm Components by Type (FDBIA 2016b, p.14).

This concentration on data has led to an expansion of counting practices to whatever can be recorded, tagged and monitored. To one administration and operation manager it meant, “that

⁷⁹ By no means a causal process, as Murphy (2015) notes “through which things come to matter... injects commitments to attending to marginalized, invisible and neglected elements, experiences and relations.” (p. 715).

every sidewalk on the district gets looked at least once a week, if not twice, a week”. Literally, the sidewalk.

In Toronto, the BIAs have primarily used GeoPal to create extensive spatial inventories of material assets and their owners. Lamp posts, garbage bins, flower baskets, tree grates, post boxes, benches, and other materials – constituting aesthetic and functional value “street appeal” – underwent a process of assetization (see Figure 12). As one administration and operation manager stated,

You can see the assets that are on the sidewalk, everything from Canada Post boxes, to cones, and bollards for construction, and newspaper boxes, almost all of them had graffiti and posters and stickers and they were very poorly maintained. That’s where we came in with the idea of doing the issue reporting [...] We wanted to have an asset inventory that was usable where we can actually integrate the ability to report issues with each asset, and have a history of issues with assets, so we can understand what’s really going on, on the street.

Able to pull up over 4,000 assets on a map and find details of their type, colour, location, condition history, status and the city standard for the asset, these networked “blogjects” (Bleecker, 2006) through their use and tracking compose a “lifelog” (Dodge & Kitchin, 2007) or urban asset inventory. While only partially automated, the manager claimed the platform with its history enriched digitized objects, furthered understanding of their area and enabled them to better account for its condition.

These data, when rendered through the platform (i.e., combined with geospatial overlays and metadata) produced granular, comprehensive, and longitudinal views of the area. As demonstrated in Figures 12-16 these ways of seeing are bound up in organizational relations and realities, which establish an ontology and a directive (Neyland & Coopmans, 2014). The tagging process creates metadata that can lead to records that give information on both the assets themselves and on the response to problems. Perceived as additive, through these technologies of

counting and calculation, the quality and qualities of the public realm became more knowable through these assets (see Figure 15).

For example, the area is represented and understood through a narrow array of its constituents. In particular, material assets such as bins were further abstracted – flagged as green, red, or black – to reflect the quality and status of the daily monitored assets. When explaining a figure, similar to Figure 12, an administration and operation manager recounted, “The green pins mean that they are fine, the red pins mean that we reported an issue with them, meaning that they’ve been damaged or there’s an issue, and the black pins mean the asset has been deleted.” To staff, these green and red pins became a means of calculating the blight in need of remedy. Visualization, while a different epistemic practice from counting, is more than just representation (Carusi, Sissel Hoel, Webmoor, & Woolgar, 2015). By transforming process into observable events, these platforms produce knowledge, as well as knowledge politics (see section 5.4). What was seen, or rather framed, was therefore governable. When more easily seen, dealing with blight (and so on) became more doable.

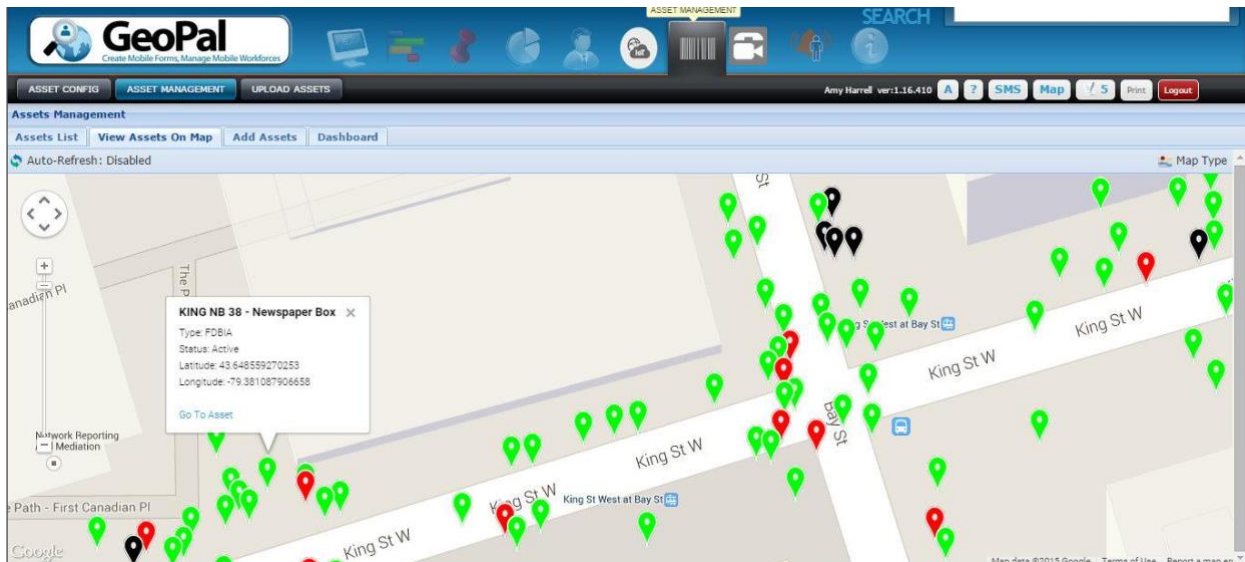


Figure 12. Asset Management Web Interface (FDBIA, 2016c)

While responsible for maintaining and creating value through valuation practices, BIAs do not own the assets they are counting, nor in many cases are they directly responsible for their maintenance. Beyond mapping and assigning unique identifiers to these assets, the Toronto BIAs used GeoPal to log, automate and keep track of calls for maintenance (see Figure 13).

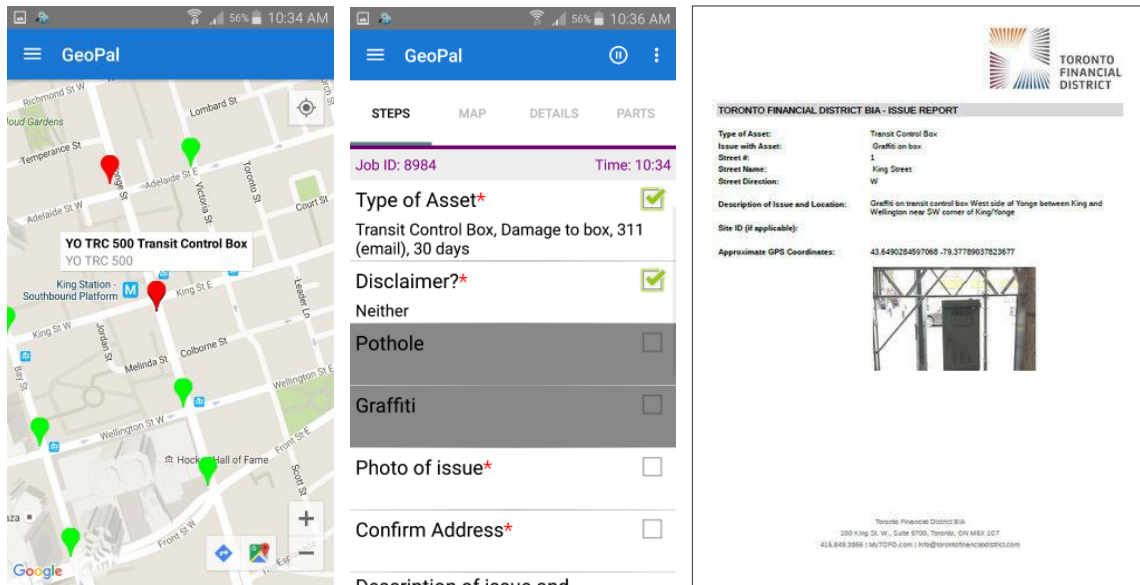


Figure 13. Issue Reporting (FDBIA, 2016c)

Once flagged as a red pin, GeoPal was used as an interface and database to generate a call for service to the city or another agency with official responsibility for the asset. In a sense these data help constitute BIAs as premium spaces; moreover, spaces of calculation. This calculable area “both geographically defined and administrative imagined” is made amendable to calculations, which are connected to larger discourses of norms, standards and measurements, such as social order and economic efficiency (Lapsley et al., 2010, p. 310). These counts (e.g., Figures 14 and 15) have a hailing, or accounting effect prefiguring a response and remedy (see section 5.4).

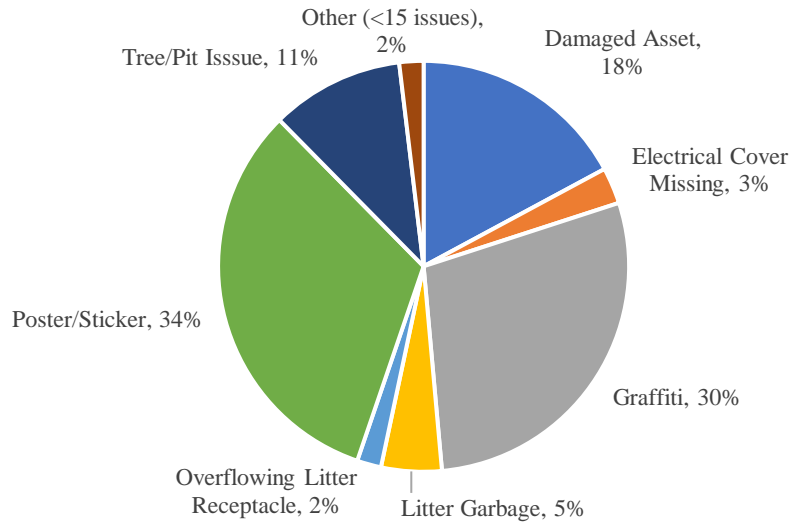


Figure 14. 771 Issue Reported by Type May-November 2015 (FDBIA, 2016c)

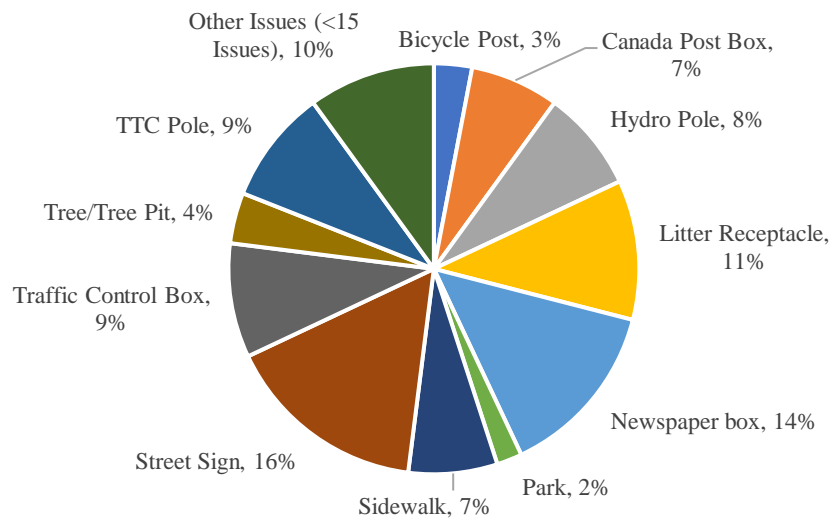


Figure 15. 771 Issues Reported by Asset Type May-November 2015 (FDBIA, 2016c)

Valuation, assetization, and counting, gave BIAs clear ways of understanding, but also of achieving their mandates. As stated by separate managers in two of the Toronto areas,

We wanted to leverage technology to create a system to make the process as efficient as possible. Each asset is assigned a unique identifier (coded with street name and asset type), which allows us to sort the 3,500 public realm assets based on type and location. This enables us to use the database for planning purposes in addition to monitoring maintenance.

The statistical tracking of our assets and has been very helpful for identifying: How many assets are out there? What is needed? Maybe we have too much of something. [It gives us] a better understanding of what's all present in [our district] and what are our needs and working with those various agencies to accomplish those needs.

The GeoPal generated data – or translation of anecdotes into evidence – was used to call attention to blight and the need for further improvements. Detailed in the FDBIA 2016 report and subsequent updates (see Figure 16) the accounts of assets triggered area-wide micro beautification projects. The hailing effect of one asset served to represent the other assets and justified a far-reaching response which enrolled further assets or constituents of the area. In other words, like Weber's studies of bureaucracy and record keeping, these practices not only required greater organizational resources, but these categorization and accounting practices fed the need for more data (Dandeker, 1990).

<p>Area-wide initiatives should focus primarily on addressing state-of-good-repair issues that are not street specific, but rather impact the entire Financial District. As such, these elements should be addressed as part of all Financial District public realm projects going forward:</p> <ul style="list-style-type: none"> - Immediately removing newspaper boxes. - Installing anti-graffiti/non-stick wraps and paint on street lights, poles, transit control boxes and Canada Post relay boxes. - Repairing damaged sidewalks. - Replacing and/or removing existing street furniture. - Installing branded Toronto Financial District street signs. - Reviewing and consolidating existing street signs, with removal and replacement when required. 	<p>These improvements are designed to address the following issues:</p> <ul style="list-style-type: none"> - Poorly maintained and haphazardly placed newspaper boxes and Canada Post boxes. - Tagged and poster-covered transit control boxes. - Rusted, damaged, poster-covered street lights and poles. - Patched asphalt and cracked sidewalks. - Damaged and poorly maintained street furniture. - Missing and inconsistent signage. - Derelict and redundant street signs.
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Figure 16. Area-Wide Projects (FDBIA, 2016b, p.53).

This unpacking of counting and categorization demonstrates how materials come to matter. Seemingly mundane materials, through processes of assetization were valued, measured and then counted as something more. Bins and benches were made to count as constituents, which were easily amenable to improvement, as well as malleable to particular assembling and arranging.

5.3.2 Places and Businesses

As eluded to in the quotes above, materials and objects often served as a proxy measure for the qualities of the area. Places of businesses were directly connected to this (ac)counting endeavor; moreover, perceptions of the area. For example, all BIA staff had various brands for their constituency, from “the economic centre” or “arts and culture destination” to “the most active street in Canada [...] where everybody comes to live, work, play, learn, shop and invest”. These brandscapes evoke forms of ordering that align constituents towards the co-production of these brands and boundaries (Bookman & Woolford, 2013; Murakami Wood & Ball, 2013). Through valuation, these places of business are framed as *normative geographies* where everything is in place (Creswell, 1999), a very particular form of world-making (Gill, 2017). The valuation of places of business is paramount to the creation, assessment, and funding of BIAs. Already countable and counted through these valuation imperatives, BIAs accounted for and were accountable to businesses. As an administration and operation manager explained,

This district is 0.01% of the land area, of Toronto, but we pay 6.00% of the taxes, and so our properties feel that they pay enough and their taxes, they want to get value for the tax money that they're paying, so rather than seeing graffiti and cleaning it ourselves, which essentially means the property owners who find this are cleaning it, we actually report it to the appropriate agency to make sure it's taken care of, that way they're seeing the value for their tax dollars.

Through their own counting practices, the BIA conceived of its business constituents as taxpayers, with particular beliefs as to how their “tax dollars should be spent.” With the BIA’s continued existence based on a *permanent critique of government* (Foucault, 2008), their own valuation practices offer alternative accounts. Specifically accounts which increase the visibility of the contributions of their constituency.

Counted by GeoPal-equipped BIA staff members, “pins” become a proxy measure of accountability to businesses. Key constituents and assets, as explained in section 1.2, BIAs saw

themselves as primarily accountable to member businesses. For some BIAs, success was dependent on the “satisfaction of their members.” However, in other areas (e.g., London, UK)⁸⁰ GeoPal has been used to better count and account for member businesses. Businesses and places undergo similar assetization and are inscribed with various qualities and counts through monitoring (e.g., visits). Now common practice by large BIAs, ambassador teams act as the “eyes and ears on the street” helping visitors, reporting issues, and checking in with their membership. Seen as a membership service, ambassadors used GeoPal as a repository for records of member visits detailing the nature of the visit, issues, requests and other information. As stated by an ambassador coordinator in London,

We visit all our customers’ places of business and our property owners’ concierges every month. The guys, when they’re out in the streets, log those visits in GeoPal. I can check that everyone’s done all their visits and also see what was recorded on each visit. If I go into somewhere, I can see what conversations happened the last time.

In this other context, GeoPal when used as a CRM platform, enabled the monitoring of membership and workers. Repeated counting practices and visits rendered a collective account of membership and their issues, providing a way of remembering and knowing the assets; moreover, a way of knowing that was co-produced and accessible to BID staff. Covering a large retail portion of central London, and representing over 500 businesses and 100 property owners, the BIA used GeoPal to help divide itself into smaller patches and as a central repository for logging ambassador visits. The maintenance and enforcement of the brandscape was delegated to the app,

⁸⁰ Though not included in the dissertation, from May-August 2018 I conducted a complementary project following the use of GeoPal by London, UK BIDs. Unlike the Canadian cases, GeoPal was primarily used as a property management tool. A comparative case will be the subject of two journal articles; however, I have incorporated some key related findings from this supplementary project to provide a nuanced and expanded analysis in this section.

We split up the whole BID [...] into five mini areas with roughly the same number of business in each. Each ambassador is responsible for that area every month. Then it rotates around one ambassador to the next, to the next, to the next. This month, for example, I'm in section two or mini beat two or whatever you want to call it and next month, June I'll be on number three. It's my job within that month to visit those businesses within that mini footprint. We do this rather than have one ambassador per little area we do this so that people don't get bored. Then the ambassadors have a more holistic view of the whole patch.

For this London ambassador coordinator, GeoPal not only helped quell boredom, trying to break up the monotony of walking in circles, but also framed the area. Specifically, business and places – as sites to be counted and to gather accounts from – standardized the organizational boundaries of the areas. In other words, by reinforcing standard practices and locations of concern, BIAs as sites of calculation, were rendered through members' accounts.

Through counting and accounting visits, BIAs assembled constituents through the platform keeping a record of and for all those involved. GeoPal and the plethora of real-time reports and updates it generated kept the ambassadors informed about issues in the area. Rather than the real-time reporting (and other oft-touted benefits of smart technologies), it was the compiling and easy re-call of accounts that were seen as beneficial. The database as an archive is jussive, rendering what can be said or inscribed, and what is remembered or forgotten (Akrich, 1992; Bowker, 2005). The parameters of this remembering are created by actors with mandates, communities of practices, and technical constraints (Kitchin, 2014b). A part of membership services, this database of accounts and accounting produced a seemingly more personal and accountable service, since by checking the last entry ambassadors were able to tailor greetings and questions. Yet this archive also reproduces and enacts previous accounts and relations (Ruppert, 2012). Not only attempting to standardize practice, these queries of databased accounts further align ways of seeing and knowing. While personalized (often “following-up” on an event or BIA business), these counts were retrospective, “pre-inscriptive” and iterating around a

narrow set of past issues. This databased ambassador knowledge of places of and perceptions of business enforced and reinforced ways of knowing and seeing, particularly through the inscription and “de-description” of threats to these assets.

5.3.3 People

Through the categorization of assets, BIA employees using GeoPal rendered and constituted the urban environment solidifying who and what counts – and who doesn’t. The condition of materials and places in the area further map on to and justify the BIA mandates. What is able to be counted depends on aforementioned assetization and valuation – what is a *matter of concern* (Latour, 2004). One Toronto administration and operations manager attempted to translate this matter of concern into a *matter of fact* making reference to the foot traffic in their area,

You can see the sidewalk is incredibly cluttered, there’s not a lot of room for people to walk. Bay Street gets something like 80,000 pedestrians every day on their way to and from Union Station every day. So it’s not even just the people who are in our district, it’s the people who are coming through to get to Union Station.

For BIA staff, “clutter” was seen as clogging active corridors and preventing what Lippert (2012) refers to as *clean and safe passage*. Pedestrians and commuters, those moving through the space according to the *spatial scripts* (Mackinnon & Richardson, 2017) of “live, work, play, learn, shop and invest” were counted as constituents. However, *failed consumers* (Bauman, 2013), were not counted as such. Instead they were understood as threats to assets, materials and places, constituents in so far as necessitating maintenance and improvement. Also treated as public realm cleanliness issues, the BIAs used GeoPal to count and keep track of people experiencing homelessness, engaging in vending and panhandling, or to broadly monitor “social issues”. For instance, as stated by a London ambassador coordinator,

Because a lot of the street population that we log, particularly street beggars, that all gets dealt with via other means [police or homeless outreach]. We do log it all on GeoPal in addition to the Council's website, so we still have an internal record of every sleeper, every beggar, every whatever, every junkie, scumbag.

Seen as threats to assets, these accounts were often left out of the official rendering of spaces, kept internally to establish records and use as testimony, or in other cases to target services. As stated by an urban management coordinator,

We are using it to track hot spots [...] those areas where panhandling or other street involved activities take place. [...] Reporting any of these issues in [our] district, mostly the panhandling and street involved activities, maintains our status as a safe neighborhood. If we start recording it now, it hopefully doesn't become an issue that increases. Hopefully, we can figure out ways to eventually eradicate it. Our hope for collecting the information is to begin to see where problematic areas are and tackle them individually, because every situation will be very unique.

These renderings helped BIAs locate issues or "hot spots" in their areas. Rather than explaining underlying social issues, these heatmaps instead became a means of directing funds and intervention. In some cases, this resulted in requests to police and private security to move-along populations, in other areas, this tagging is claimed to have a positive social purpose. As outlined in one of the BIAs program objectives, these accounts were officially used to,

Assist the City's Streets-to-Homes Outreach Team in helping people in need by communicating information about new people in need of assistance, changes in conditions and location of people in need to ensure outreach begins as early as possible and deteriorating conditions are addressed as soon as possible.

What this objective looked like in practice was explained by an urban management coordinator,

We may report if there is a constant person that's there and log what they're wearing. The goal with reporting those matters to Streets to Homes, which is a part of the city's shelter-supported housing, is so they could directly connect with them on the street. And then if there is something that poses a risk, reporting it to the necessary agency which may be the police or other [community organizations].

While counted, people experiencing homelessness did not actually count⁸¹ as legitimate “assets”, nor were they acknowledged and accepted as constitutive parts of these areas. Rather they were understood as out of place and in need of (dis)placement and not belonging for long in more desired renderings of the areas. As the latest iteration of “shrinking the public and private spaces of the poor” (Hermer & Mosher, 2002), these spatial renderings reinforce practices of exclusion as some groups are counted and yet don’t count. More precisely, people experiencing homelessness were countable and counted, but homelessness (or the factors in that area which may contribute to it) were not. Potentially factors that could be counted, they were not the matter of concern (nor the matter of care); therefore, addressing them was not “doable” or even within the scope of the BIA mandate. To the BIA, what was undesirable was merely their presence, not what might contribute to it.

Although “safe and inclusive” has been increasingly discussed in the BIA realm, with strong Canadian proponents (see DYBIA, 2017), rather than being accountable to those experiencing homelessness, these (ac)counting practices, targeting public realm improvement ultimately call into question who belongs and for how long? By tracking these hotspots and redirecting city services, the Toronto BIAs have found various means of cleaning and maintaining the area. Almost deferring move-along practices to the app and associated agencies, one BIAs executive director was critical of this practice,

⁸¹ I noted the conceptual slippage in “who or what counts.” This double entendre is purposeful, albeit verging on polemic. In many cases trying to tackle these large social problems by creating resources for membership (see DYBIA, 2017) or directing people experiencing homeless to city agencies, I contend in practice “safe and inclusive” matters less than accountability to businesses. What matters, and the accountability relations it entails, becomes especially clear when delegated through this application.

We monitor social issues, but we don't put them through [GeoPal]. I know on any given day, how many individuals I'm going to find or who are sleeping on the streets every night. We don't use technology [for that] we use more relationship-based practices. We still capture that data but, we don't leverage it. To be clear, we find that it's not as humanistic to capture the plight of individuals on the street using the app and then disseminate that. That's one of the things [the other BIAs are doing], they share that data with Streets to Homes. But when someone is walking around counting, that data doesn't capture movement. Was that person migratory? If so, the same person could be reported three-four times based on how you're leveraging the app and doing the calculations. So, you may be overstating the issue on your streets when it comes to social issues. It's mostly bricks, mortar, it's the infrastructure, its mailboxes, garbage cans, hydro poles, graffiti, posterings, stranded bikes, all those things that can impact your experience levels.

With a longstanding clean and safe outreach programs, they condemned logging "social issues" in this way, through GeoPal. While calling for a more "humane" "relationship-based" approach to address "human plight", those out of place were displaced or in some cases replaced by new assets. For example, one of the BIAs installed large planter boxes outside a Tim Hortons on Victoria Street, to urge Jay, a man who had been residing in this area for over a decade, to accept help and housing (Burman, 2018). Outreach workers, noting Jay's deteriorating health had tried to place Jay in a housing unit in partnership with the BIA (Burman, 2018). Although in many ways pioneering and supporting safe and inclusive programming (DYBIA, 2017), this display of temporary hostile architecture challenges forms of human practice, mutual accountability and inclusivity. While using the app for different purposes, in practice, the BIA made it clear what it understood as "blight".

Asset management technology and associated counting and accounting practices have enabled BIAs to know and understand their areas in terms of a narrow range of valued assets. Through counting and accounting, BIAs identify what constitutes the area – materials, place and people. These ways of knowing assets assembles the BIAs' constituency, and renders them accountable. This connection between visibility and accountability – "making things visible,

making them count and instituting accountable ways of dealing with them” – further interpolates who is held to account for them (Neyland & Coopmans, 2014, p.2). BIAs, themselves intended as a governance tool for mutual accountability, through these practices determine to whom they account. As explained by a manager, “We’re paid for by businesses. We should be able to show what they are paying for and what we’re doing with it. You know, accountability.” The use of GeoPal in combination with mandates and practices of *improvement* suggest accountability to its constituency.⁸² Furthermore, the knowledge produced by them serves as a means of promoting accountability, and (in)directly governing what they consider to be the proper conduct of public and private agencies.

5.4 Holding to Account: Matters of Care

While recognizing the tenuous position between establishing the need for improvement and legitimizing their own continued existence, BIAs are careful to not completely privatize cleaning and beautification projects. Instead, seeing themselves as “the great convener”, they have adopted rhetorics of supplementation and finding various means of leveraging existing city services. One urban management coordinator, suggested that the asset management program ensured the delivery and extension of service,

What we’re doing is actually supporting what the city is doing. The city can’t always get to our area; Toronto is a really big city. In times where the city isn’t able to get down here, we’re just trying to stay on top of things and summer time is a really busy time, but this results in lots of litter and postering and graffiti which requires a lot of effort on our part to get those areas cleaned up.

By triaging public realm issues and stepping in when and where necessary, the BIAs also took steps to decrease agency requests by outsourcing tasks to their own teams, contacting the

⁸² More simply this could be considered the privileging of organization accountability over other forms of mutual accountability. Constituency here is helpful as it refers to the humans and nonhumans who are aligned to make the mandates of the area doable.

appropriate vendors, or even installing various forms of blight deterrence or prevention. These sentiments were shared by another administration and operations manager,

We don't want to be responsible for ultimately cleaning everything. We have noticed that it's really hard when you have a city the size of Toronto for them to necessarily see the value and coming out and cleaning a sticker off the back of a street sign. It's a very small issue, right? In the broad scale of things, it's more important to us that the big graffiti tag on a traffic control box is fixed faster than the small sticker on the back of the street sign, but that still doesn't take the public's experience. It still looks dirty and messy and untidy. We identify gaps and in that particular instance of the street signs, we found that the city is not really, I don't think, capable of meeting a standard where they're able to come out and remove every sticker from the back of every street sign. As part of our public growth and improvements, we have to take the street signs off the poles anyway in order to wrap them [with an anti-graffiti covering].

While stepping in where necessary, BIAs directed these matters of concern to public and private agencies. For the Toronto economic partnership advisor, these discourses of supplementation were key, both as part of BIA's legislated mandate, but also in terms of accountability to their constituency.

They are not replacing the services provided by the city, and that the BIA should be very clear about that. Make sure that they're not – the purpose here isn't to download and they need to justify that to their members they need to be accountable in that respect – being downloaded to, that these are services to supplement the work being done.

To this point, rather than replacing city services, many of the BIA directors and managers explained their function in terms of coordination and innovation. GeoPal's automated reporting and straight through processing (STP) features have streamlined accountability relations.

Aligned with accounting practices, BIA staff evoked a discourse of auditing, and conceptualized their job in terms of ensuring the best value (Gill, 2017). Concerning how these accounts of public realm assets are used, one administration and operations manager stressed, "It enables us to really hold the agencies accountable to make sure things are done." With that they acknowledged the multiple meanings of accountable – as something not only able to be

explained but also to be responsible to others (Neyland & Woolgar, 2013). The manager went on to state,

They're going through and they're reporting the issues. The other thing is, it's more than just reporting the issues, we needed the ability to actually hold the agencies responsible for the public realm assets accountable for fixing them. You can't just report an issue and walk away, [our staff] actually go back every week check and make a note until it's actually completed. Until the graffiti is gone, or the poster is gone, or the broken asset has been replaced or whatever.

Through the daily monitoring of assets, BIAs reinforced accountability practices making agencies both responsible for and having to answer, usually through repair, their requests. These framing practices as argued by Metzger and Wiberg (2018), serve to establish a connection between what is and what is to be done, presenting a particular matter of care (Puig de la Bellacasa, 2017). For the BIAs, monitoring and tracking does not end with the assets. As explained by one administration and operations manager,

We issue a bi-annual report to every agency that we report to that basically tracks their progress and identifies gaps in service. A lot of times, that allows us to find ways to massage the process so we get better results in our district, and sometimes it allows us to implement pilot programs where we can make a difference, we see a need for additional investment in a certain area, we can do that in order to kind of bridge a gap that may be in existence.

With GeoPal, accounting shifts from being a means of rendering and measuring, to one that serves to promote change amongst its constituency. This accounting produces accountability relations,⁸³ in which the BIA solidifies its role as convener, making itself accountable to its assets and constituents and then, ideally, holding other agencies responsible for their remedy. It is in effect a practice of double-entry bookkeeping, where accounts of assets are to be balanced

⁸³ Accountability relations here referring to the communication of governance (Ericson, Doyle & Barry, 2003; Miller, 1992).

against another agency's liability and equity. By way of example, one administration and operations manager explained a report and justified the logics behind it,

For example, this was done last year for 311 Toronto which is responsible for, not all, but many of the assets that the city owns in our district [...] you can see 311 is at 40% – what types of issues that we are reporting based on the type of asset it is, or what the issue is, what asset is. Then what we can do is for specific to 311, again what the issue that we are reporting to them and what the asset is, as you can see a lot of it is poster and sticker and a lot of them are street signs and TTC poles[...] And then we give them an overall timeliness resolution so you can see that initially they were at 58% and went up to 69% which was a really nice improvement, they dropped down a little bit in the summer.

This particular form of accountability demonstrates the rationalities but also subversion of “governing at a distance” (Rose & Miller, 2010) or “deresponsibilization” (Coaffee et al., 2009). BIAs delegated to oversee the public realm, attempt to hold agencies accountable and answerable through information. These market devices also perform accountability relations and define who are the responsible constituents. Presented as a tellable story of efficiency, responsibility and value, this practice is hard to question in principle (Strathern, 2000 as cited in Gill 2017). These accounting and auditing practices reinforce “relations of visibility” (Espeland & Lom, 2015). The administration and operations manager went on to explain that these accounts not only served as a benchmark of their BIA success, but also as a means of measuring and maintaining standards across agencies.

There are various standards based on the agency and with the city, each type of asset has a different standard in terms of what the standard is for improvement, so that's where we get into the issue of accountability and making sure that we are actually communicating to them from a broad view, not an individualized basis view but a broad view[...] So, we can show them where they stand versus our reports to other agencies[...] We track resolution rate, so you can see that of the issues reported three quarters were resolved and then we track timeliness on whether or not they were resolved within the city standard time frame, or not.

This holding to account then becomes a further measurement of ROI, as BIAs used these accounting practices to overcome competing “bureaucratic rationalities” (du Gay, 1994). These

practices for the BIA were situated amid “contemporary managerial discourses”, which emphasized market-oriented, proactive and entrepreneurial logics and rationalities (du Gay, 1994). According to the BIAs, these accounting and accountability practices have resulted in a 92% resolution rate of reported issues, and improved timeliness and regularity of response. In addition, they reported a 51% decrease in unlicensed boxes, better allocation of parking enforcement offices, adjusted film permit locations, as well as additional and earlier outreach from the Streets to Homes team (FDBIA, 2016a). Furthermore, for one of the BIAs, the app had enabled over 1,900 repairs they claimed would not have been addressed or improved by regular city operations. While pleased with the accountability resulting from their (ac)counting practices, one executive director noted its limitations,

[...] it’s never good, with the use of data to identify somebody that’s not doing their job 100%. So, you have to be very cautious on how you use the data and really the way we use it is not to identify, “Hey, you’re not doing what you should be doing,” But we’re not using it in a confrontational way or we’re not going to use that as argumentative. It really is how do we work together to improve the experience level. If we all agree that[...] this is where everybody comes to live, work, play, learn, shop and invest. If we all agree on that, then how do we leverage the data to show that these departments are succeeding in their service levels or that they need additional staff? It really starts to pinpoint some of the problems within the bureaucracy. So, you’ve got to be very careful of how you use it. You don’t want to be a finger pointer.

To them these data served to promote “institutional thickness” (Amin & Thrift, 1994) orientating actors towards common goals. These articulations of common goals combined with the (ac)counts served to partially align these bureaucratic and managerial objectives, but also reaffirmed the tensions between them.

5.5 Aligning Constituents

One instance of the polyphony in the city, as argued by Arnaboldi and Lapsley (2010) is the articulation of *voice* behind whose matters of concern matter, and this has profound implications

for the outcome of competing visions. The use of GeoPal to the BIAs made their public realm maintenance mandate more “doable”. However, technology alone does not make problems more doable, rather it is the “alignment of several levels of work organization” – experiment, the lab, and social world – or in this case the app, the BIA, and the city (Fujimura, 1987, p. 258). Not separate, scalar or hierarchical the heuristic (see Figure 17) serves as a way of looking into the assemblage – thinking about how the actor network (various constituents) takes shape around making do. In addition to the accounts above, the three respective quotes from a GeoPal representative, a BIA manager, and a City official offer windows into the assembling of constituents and their alignment.

From the development to one of its eventual use-cases for asset management, a GeoPal representative recounted its functions, and its *experimental* potential,

What we’ve done is combine the number of existing technologies, IoT sensor technology, simple smartphone capabilities, transferability, mapping. All these things are available to any 13-year-old on a mobile device. However, when you combine them all with a goal in mind [i.e.,] help a BIA to have the impression something’s going on the city. If you have the vision in terms of how you can use that technology [then] that’s powerful.

Not a singular solution, or even a solution, the representative argued that “with a goal or vision in mind”, the data and features or “set of tasks” the app enabled were practical and useful. For the Toronto BIA concerned with public realm maintenance and blight, the application helped draw together constituencies. The administration and operations manager, reflecting polyphony and conflict, further justified the BIAs’ experiment,

We went out and did it ourselves, we didn’t want anybody to tell us it was a bad idea. Because it’s one of those things when you’re starting to report issues, the responding agency can see a definite increase in the volume of work and have to be able to accommodate that. In retrospect, I probably would have sat down with some of them a little bit in advance of putting this together.

This exercise of “act first” entrepreneurial practice, highlights the grey, or non-negotiated space, the BIA was operating in, the messiness of the *lab*. While the accountability produced through app was celebrated, lack of initial discussion and negotiation with the city further demonstrated how the “City” was understood as a constituent. Despite seeing the BIA as a constituent of the City *social world*, the success of the asset management program required assembling agencies and aligning them under and towards this goal, in other words, aligning the BIAs goals with those of the City. One Toronto economic partnership advisor, responding to the achievements of the BIA asset management programs, articulated this constitutive project,

311 depends on concerned citizens raising and reporting issues. Whereas [with these 3rd party apps] if issues are coordinated, reported and resolved more frequently. It’s sort of taking advantage of a loophole in the system, I think because the system is set up so that the city gets so many complaints and concerns here [in an area], and that they [BIAs] manage them online, they take advantage of that, and will really survey their entire area – [something like] we’ll take stock every week and we’ll report everything to you. I think it’s really clever that way... Yes, it’s really taking advantage of the reporting mechanism. I haven’t heard any one [from the City] raise any complaints with the way it’s done. It seems to be the way they’d like to do business too, everything is reported electronically.

The advisor, acknowledging the tension over who is responsible for maintaining the public realm, explained “the loophole” as a self-serving practice they were entitled to use. While helping themselves and directing city services to particular BIA defined premium spaces (assets), they stressed it was still the City’s job. In fact, according to the advisor, the automated reporting and STP was actually seen by some city divisions as more cost and resource efficient,

From all the feedback I hear, it is working, the divisions like the way that it’s packaged to them. For example, if you have a one broken bike ring, it takes a lot of resources to send out someone to repair it. Whereas if you give the division 20 street furniture repair requests, then they could do all of them in a similar amount of time. It might lead to efficiencies. That’s what I’ve heard from the BIAs, I haven’t really heard from the city divisions.

Aligned around a seemingly similar common goal, the advisor with these accounts highlighted the various levels of work that the asset management program brought together, as well as the justification behind them.

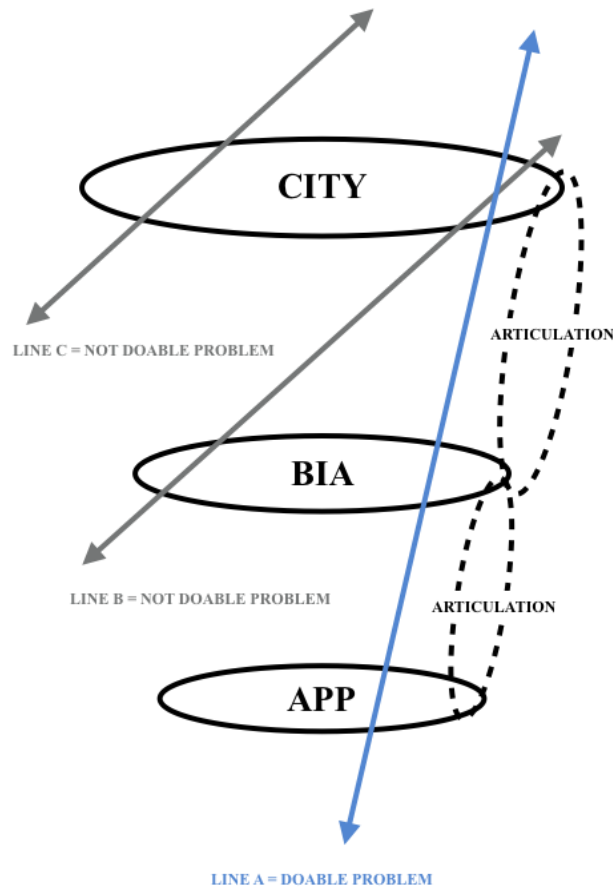


Figure 17. Aligning Levels of Work: the App, BIA, and City (Adapted from Fujimura, 1987)

These three accounts offer windows into the assembling of constituents and their alignment. While valuation practices (e.g., counting and accounting) are discussed above as well-defined tasks and constituents, the work of articulation “considering, collecting, coordinating, integrating” (Fujimura, 1987, p. 285) cuts across these windows into the assemblage, but also aligns these constituents in particular ways to make do. In essence, framing and valuation practices are co-productive (Callon et al., 2002). Similar to the account mapped throughout this chapter, Simakova and Neyland (2008) see the identification and assembling of a constituency, the narration of a tellable story, and the development of a compelling version of this story as

critical to the doability of program. In particular, the construction of a tellable story, or the “articulation of a constituency of people and things and the relations drawn between those entities” serves to align goals and measures (Simakova & Neyland, 2008, p. 96). Both mundane and complex, stories that are *tellable* reflect problems (and solutions) that are doable; and the ease or communicability of a desired message depends on assembling the right constituencies.

5.5.1 Articulation and Tellable Stories

From the outset, the BIAs recognized that counts and accounts enabled them to tell a story. Specific indicators, in this case of street appeal, were selected that “align[ed] with the story [they] wanted to tell” (CUI, 2016). The completion of these practices (i.e., experiments in the lab) were not enough; rather, the articulation and communication of this work was also constitutive of the program’s and BIAs’ success. Already an entrenched and mundane practice BIAs employ a range of communication tools (e.g., downtown profiles, reports, scorecards, topical brochures, newsletters, media releases, etc.) (CUI, 2016). To them, the presentation of their work served to align their constituency and rendered accountable relations. As recounted by an executive director, with increasing cuts to city budgets these accounts “data” were given greater importance,

It does the operational improvements but also it helps articulate our work to the community. For example, I know that my [clean and safe team] on a monthly basis walk the distance from Toronto to Ottawa. I know the number of pieces of graffiti in our areas. It allows me to bring that educational, factual component to the discussion, take the emotion out of it. So, we can talk about the number of pieces of graffiti that we removed and where, how many pounds of waste and illegal dumping did we pick up, how much posterage we remove. It gives us statistical data to add to the conversation to show the diversity of issues and their urgency to city departments – to say this is why you need to do X and here is the data supports it.

These partial counts of assets were rendered impartial. The “facts and figures” stripped of emotion, when prudent, made for a tellable and even compelling story for many city divisions.

Such suggestions of data as raw, impartial and factual serve to distance it from its socio-material production (Gitelman & Jackson, 2013). Similar sentiments were shared by an ambassador coordinator in London reflecting on how daily work was rendered through the app and then used to petition stakeholders,

[The directors will] say, “Can you just arm me with some facts and figures, what’s your engagement been with X business because I’m going to try and prove our worth.” That happens quite a lot especially when money’s tight for people and they want to know their value for money. So, she can go in and say, “Our ambassador team visited you three times this month and brought discount cards”, or “This month they got the streets cleaned outside your business 86 times” or “This month they did this and that.” Then it proves the value. [...] That’s how it gets used, and I get asked to – I was going to say make it sexy but data’s never really sexy – make it look interesting, tell a good story with it.

The translation of various levels of work – mundane practices of (ac)counting and monitoring – into to tellable, “sexy” or “interesting” stories demonstrated the creation and maintenance of value to stakeholders (the BIA constituency). Through (ac)counting, once mundane accounts become accountable or durable (Woolgar & Neyland, 2013; Callon & Muniesa, 2005). On the one hand they seem neutral, objective and are able to be mobilized in a variety of contexts, yet on the other hand they are sticky and calculative (Ribes & Jackson, 2013). This shift between matters requires an active process of simplification, redaction and deletion (Law, 1996). Despite knowing the subjective process of assetization and the partiality of (ac)counting practices one executive director stressed its utility,

... data tells me everything that I need to know. [...] It’s the empirical information that you need to make decisions in your area. When I see a garbage can, I was always wondering “How long has that been broken? Where is it? What is the service levels on it versus other assets?” Now I know, and now it’s fixed.

Not abstraction or representation, data are “constitutive and their generation, analysis and interpretation has consequences” (Kitchin, 2014b, p. 21). Like other specialized knowledge produced by BIAs (e.g., CCTV, ambassadors, mundane observations) (Lippert, 2012), these

insights lend greater credence to the creation and maintenance of value. By knowing their area in these ways, GeoPal helped them predict, as well as construct, future needs. As explained by a GeoPal representative, when combined with a particular vision this data could predict resource allocation “seasonally or even down to the day”. Through asset management this *smart accounting* further legitimized not only their role as conveners but also the practice of helping themselves.

Considered “eyes and ears on the street”, the adoption of GeoPal furthers the BIA gaze, as data gives them additional authority to account for the area. For the BIAs, the stories they could tell with data – the rendering of accounts into practices of accounting, into accountability relations – were not only tellable, but compelling. In fact, one executive director felt very strongly that their use of data made it a pioneer in the city,

Now, the city comes to us because we’re a bit of a leader. With the data, we produce infographics and we share with our membership, which creates that conversation and expresses our needs.

Able to articulate its voice over others, the use of GeoPal and the resulting data helped to assemble the City as part of its constituency – in a narrow sense inverting legislative understandings of governance and accountability relations. BIAs, by innovating with asset management, demonstrate their ability to take account and plan for the future of their areas, the city, and their role in its governance. Through these practices and geospatial technologies BIAs advance their own *knowledge politics* (Elwood & Leszczynski, 2013). They shape places, and in combination with tellable stories serve as the basis for the creation of markets and their continued existence (Graham, De Sabbata, & Zook, 2015). GeoPal understands this process as well as their role in it,

A good way to start would be to make your work first mobile, get them tracking succinct, structured, and pertinent data. Then design a process to analyze that, and then show it to the Mayor and say, “Hey, can we get some funding?” That’s the process that a lot of BIDs are on.

The GeoPal representative explained the relationship between tellable stories and the funding cycle. The platform itself, like other surveillance technologies, is embedded in funding opportunities and cycles which are increasingly competitive and further a marketplace-like government environment (Murakami Wood & Mackinnon, 2019). As devices for entrepreneurial governance – that blend the logics of managerialism with the current “baby big data” collection desires of “smart” initiatives – GeoPal and its data serves both fundamental objectives and also opens new possibilities for extending those objectives. Aware of the benefits to both to BIAs and themselves, GeoPal has positioned itself (like BIAs) “right in the middle”; as a lower-cost means of playing and piloting with smart technologies for high level decision making. This positioning has amplified the circulation of calculative practices and these technologies. BIAs – long discussed in terms of policy mobility – are also engaging in the circulation of practices as these technologies and associated benchmarks (especially benchmarks for governance) travel across BIAs. In doing so, tellable stories become more “compelling: and durable (Simakova & Neyland 2008).

5.6 Aspirations: Compelling and Enduring Stories

An executive director, when teasing apart the multiple industry meanings of ROI, referred to it as “rip off and implement, is what we call it, you don’t need to invent the wheel.” All engaged in practices of creating and maintaining value, the executive director stressed that it was economically advantageous, but also necessary for BIAs to learn from each other. Involved in

local, national and international conversations, one administration and operations manager explained the initial impetus and process behind the program,

We are all finding the same problems, we might as well fight them together. For instance, Downtown Yonge was looking to implement the same program. I worked with his staff and we kind of did a concurrent RFP process. We both selected the same vendor, then we just kind of set our stuff up similarly. It's a bit different because of diversity in the areas. They use it a little bit differently than we use it, which I think is to be expected because every district has different needs. The Entertainment District in the last year has started using it, but it's not nearly as extensive.

While appreciating the need for geographically specific and community-based solutions, the mobility of the technology and associated practices were telling and compelling. For example, the FDBIA believed the replicability of their program was a measure and indicator of success and ROI (for itself and the BIA community). In its 2016 IDA awards submission, they reported on the mobility and durability of their program,

A benefit to using technology and data to improve the public realm is that individual districts can develop programs based on their specific needs, and model new programs as needs change. Since the FDBIA's implementation of the initial asset inventory system, other BIA's in Toronto have adopted similar systems to meet their individual needs. In some cases, where similar programs are used by multiple BIA's, the FDBIA has shared the templates and program information to ensure consistency of reporting to agencies, allowing for both clarity and consistency of information provided to the agencies and the ability to develop joint reporting for larger areas over time (FDBIA, 2016a).

This submission, a tellable story in itself, by referencing the mobilizing of other constituencies attempts to make a more compelling version. Already onboarding two other BIAs, FDBIA and GeoPal representatives also gave program demonstrations to other Toronto BIAs (as well as to the IDA community). Marketed as "adaptable to meet both small and large BID/BIA budgets", for \$300/month they suggested the program could be tailored to the specific needs of the area (FDBIA, 2016a). Despite telling a story of more doable governance, to date these demonstrations

had been unsuccessful in onboarding other Toronto BIAs. The limits of the program's mobility were explained by one Toronto economic partner advisor,

It's mainly with the larger BIAs that have resources, the technology to address the asset management. One of their staff can go out and do that or they can hire someone to do it. I think some of the BIAs just try to do it by web-based GPS etcetera. Again, that's costly. Most of the smaller BIAs that I work with it's close to nonexistent or the asset management is essentially on an as-needed basis.

While making their program more mobile, this did not necessarily translate into a more compelling story, as smaller BIAs still deemed it unnecessary or not applicable to their own mandates.

In response to the limits of these tellable stories and precarity of program and platform, both the current the Toronto BIAs users and GeoPal sales team had begun to draft other accounts. All attempting to make their public realm mandates more doable, representatives from the three BIAs had commented on the need to partner amongst themselves (and with the larger Toronto BIA community). While they already shared information amongst themselves, for it to be helpful and actionable, explained one urban management coordinator, it needed to be standardized. Although the platform could support information sharing and stronger partnerships, the BIAs would need to further standardize all of their valuation practices for it to be commonly analyzed,

What we've talked about is what three of us coming together to take a look across the board on how we can actually use all of our stats and information to be more of a powerful voice for the downtown core and what the needs are down here. But what that requires is if we're all reporting it in different ways how do we then amalgamate all of our information, consolidate all that information so that we can get a really clear understanding of it. I'm not sure if that could then be the effort of GeoPal to do that for our effort, but it will be nice because somehow find easy ways to find all the commonalities of what we're looking for and they create a unified voice behind advocating for whatever the top priorities emerge from using GeoPal.

The BIAs recognized the greater knowledge claims they could make with a "unified voice".

GeoPal shared similar aspiration of bridging partial data and platforms. As argued elsewhere, much like the BIA itself, GeoPal was positioned as a “partial platform”, not a totalizing system (Mackinnon & Murakami Wood, forthcoming; Murakami Wood & Mackinnon 2019). Aware of their similarities (and similar limitations), GeoPal enabled BIAs – operating at a “community level and sometimes voluntary organizations” to play with “relatively sophisticated” smarter urban technologies and pilot a range of programs.

While not a testbed in a conventional sense – allowing for control of large-scale experimentation – as outlined above, the BIAs use of GeoPal exhibits the logics and epistemology of *test bed urbanism* (Halpern, LeCavalier, Calvillo, & Pietsch, 2013). Performative, inductive and statistical, the platform enables BIAs to play with and reconfigure territory and people. Play, a form of articulation, is seen as aligning with larger smart city development, at least from the perspective of the tech company, testing out how existing practices may be further automated and networked (Mackinnon & Murakami Wood, forthcoming). GeoPal offering its own tellable story, marketed further automation and networking of asset administrative as an aspirational and yet achievable aim.

What’s next, is to try and take that further, implement more. Again, we talked a little bit about having the Toronto BIA community somehow band together and use it. There’s nothing innovative there, except the scaling-up. I think specifically around Toronto, we would hope to get as many customers using it, even if all of them only use it to do one form or one data capture piece. There’s value in having everyone do it. I think that’s it. Get simple things done at scale. Because of course, when you talk about big data and such, it’s not the data it’s the big.

Like the Toronto BIAs, the GeoPal representative assembled constituencies towards a shared goal. The company’s need to onboard more users in the Toronto case was aligned with data capture, and the knowledge politics it entailed. Data even if they are limited, when collected on a Toronto wide scale, was seen as able to increase advocacy power of BIAs. As explained by the

representative it wasn't the data that was large, rather it was the volume, variety, velocity and veracity of the user group.

The GeoPal representative, by scaling-up the tellable story, offered a compelling account of “get simple things done.” While creating and maintaining value was the means to the end for making mandates doable, for most BIAs, the adoption of “smart” technologies signals far greater ambitions. The ability to “develop joint reporting for larger areas over time”, “amalgamate all of [their] information” and “scale-up” suggests organizational work and aims far beyond their legislative mandates. These technologies *redistrict territory and bodies* (Halpern et al., 2013), and the proposed joint use of GeoPal highlights this in an albeit literal sense. BIAs, as premium spaces and products of splintering urbanism, through these asset management programs, amplify the fragmentation by inscribing the aforementioned relations into the platform. However, these relations are complex, contingent and messy and unstable. While telling compelling stories attempts to stabilize current arrangements, both BIAs and GeoPal acknowledge competing voices at the urban governance table. The GeoPal representative commenting on the current technological buzz in Toronto, articulated his own layered interpretation of constituencies,

I think there's a huge amount of willingness towards innovation in the city. There is a corporate level [...] then infrastructure [...] then a massive tech company level [...] Then somewhere in the mix, on the ground you've got the BIA level [...] and they all funnel up to the city BIA office. And right now, [the three BIAs] have this leadership exercise here which says, “Okay, we're going to make this model. Let's think ahead, figure out what's happening on the ground and do something that's really important”. I believe there's an opportunity to completely integrate the whole model [...] whether GeoPal is at the base of it (or not) is not a big a concern. We could be on the cusp of something really interesting [...] Toronto is a fantastic testbed for this [...] and we would like to help.

With this, the representative outlined various constituencies that would need to be aligned, but also challenged their long-term viability. However, the constituency or constituencies, just like audiences “can come together, move apart, pick up on, dispute or ignore

the ‘compelling’ story” (Simakova & Neyland 2008, p. 99). And while to BIAs and GeoPal, for now, the asset management and planning technology fit the governing needs of the areas, these sentiments were not necessarily shared by the city. During a “Planning our Smart Cities” conference,⁸⁴ and in light of local large-scale smart projects, the Toronto chief transformation officer noted,

One of the core challenges is that we don’t necessarily have the right governance model, to facilitate the right conversations across different stakeholders, in the city both public and private, but even just within the public realm. Who is responsible for making sure that a street light project is a ‘smart’ project? Who is responsible for that particular asset? Everyone is well meaning, but we don’t necessarily have the right governance structures to make sure things happen.

This reference to the “right conversations”, and “right governance model” took clear aim at existing forms of entrepreneurial urbanism in the city. To the chief transformation office, “right” was understood as a city wide, top-down approach, and envired common goal. With the new municipal initiatives like the Transformation Office or City Innovation Office (both made up of previous business executives), or the attracting of big-tech companies, the chief transformation officer positioned total systems as a more effective and efficient means of delivering public services (Mackinnon & Murakami Wood, forthcoming). The City’s emerging knowledge politics may serve to destabilize and misalign these discussed arrangements. Nothing holds its shape for long.

⁸⁴ Held in downtown Toronto on March 5th, 2018, the Toronto Chief Transformation Office and Vancouver Chief Technology Officer (CTO) shared insights into their existing and future programs. This conference is also referenced in Chapter 6 and serves as a partial bridge between these cases highlighting one of the many connections made by travelling experts and technocrats and the role of discourse communities and trans-urban policy pipelines.

Chapter 6

Risk, Refuse and Relations of Visibility

It was an early morning of a typical rainy fall day in Vancouver. I sat in the back of the community policing sedan, brightly emblazoned with BIA Community Team, and Paladin logos and listened as two guards, both middle aged men, discussed the day's activities. Not wanting to get in the way I reinforced, "I'm just work-shadowing you for a couple days. Don't worry about me and carry on with it. Forget I'm here." Of course, work-shadowing is never that unobtrusive. After being dubbed "precious cargo" and asked to "please put on this bullet-proof vest", we started driving around a downtown Vancouver neighbourhood. Our day would consist mostly of picking up sharps (about 200 hundred by the end of the first 8-hour shift); tracking hot spots, scanning RFID tags, and using a digital interface for uploading reports on municipal issues; and visiting businesses, either in passing or due to calls for service.

We drove a couple of blocks off Hastings Street and parked the car in a light industrial area undergoing gentrification. As the guards exited the car, they both put on leather gloves. I walked to the back of the car as they took out two sharps boxes and reach extenders. There were six sharps boxes in the trunk, two from the previous day which had not been dropped off. "We will easily fill these by the end of the day", said one of the guards as the other fumbled with a tablet.

As rain closed in on the city, the guards received a call about an encampment in the back of a business owner's lot. Seven blocks away, we promptly started walking and the two guards discussed their strategy. "Okay, we'll call the police, but it's the Downtown Eastside, so that will take hours. Let's go check it out, and then see what we can put to 311 system in the meantime." Once there, one guard entered the store and I stood outside as he pulled out three different cellular devices. One was a BIA work phone, he used to call to the Vancouver Police Department; the second was a Paladin Tablet, used to record the details of the event; and the third a personal cellphone with the VanConnect App on it, used to submit 311 requests.

In the rain, the three of us stood under the awning of a flower shop, about 20 feet from the tents, and waited for the police to arrive. An hour later, with lights and sirens going a new cruiser pulled into the lot and parked a couple feet from the tent. The driver sounded the horn before getting out of the car to see if anyone was inside. When no one came out the officers went in to find the tent empty. One of the private security guards approached an officer and discussed the timeline of moving the encampment. "Come back and check on it tomorrow, and we will come back later tonight" was roughly what was agreed to. After one of the guards followed-up with the store owner, completely soaked, we all headed for lunch. Once we had finished our sandwiches, they received another call for service, this time a business with vendors outside the front door.

We put our soggy clothes back on. "You are probably going to stay in the car for this next call, so just leave it off", said one guard watching as I attempted to lift and wear my waterlogged vest. They discussed their strategy, as we drove back to Hastings, "We will ask them to stop vending, suggest they move to the market, and see if there is anything, we can offer them." As they pulled the car over, one of the guards turned back and asked, "You don't mind staying in the car, right? I just don't want to have to be worried about you as well." I nodded as he handed me the work phone, "If anything happens, call 9-11", he said as he got out of the car.



Figure 18. Vancouver Streetscape

6.1 Maintaining and Securing Value

While not included in the original Toronto BIA model, through policy mobility and mutation, safety and security initiatives have increasingly been added to BIA organizational mandates (Lippert, 2010, 2012). In Vancouver, the “success” of these initiatives has made for a compelling story that has furthered BIA formation and private security practices in the city.⁸⁵ As explained by one Vancouver executive director, “Safety and security are always going to be a primary issue, they have been from the outset.” A longstanding director of a neighbourhood on the cusp of gentrification reflected, “The area has changed a lot, and so have the issues.” Acutely aware of the issues, as well as BIAs’ roles and responses, they recounted a list of systemic problems – missing and murdered sex workers, high rates of homelessness, a lack of social services, displacement, gentrification, increasing property taxes, and the opioid crisis – the compounding impacts of which they could see on their streets.

Neither new or distinct problems to Vancouver, BIAs and their members across Canada are “on the front lines when it comes to property crime, cleanliness, and disorder on our commercial streets” (Vancouver Partnership, 2017). Concerned with the impacts of the opioid crisis on Canadian businesses, one Toronto executive director in a news report stated,

It’s difficult to quantify the economic impact that the ongoing crisis is having on specific businesses or neighbourhoods. But a number of neighbourhood business organizations across the country have noted a significant increase in discarded needles, homelessness and petty crime over several years (Rendell, 2017).

The senior economic development manager for the same area went on to say,

⁸⁵ While not included in the dissertation, as part of my fieldwork, I conducted what could be seen as a follow-up study to Huey et al. 2005. In a forthcoming article based on this data, I explore the range of private policing practices currently used by five Downtown Vancouver BIAs. Carried out in the post Human Right Tribunal context (see section 6.2), I focus on alternative practices that emerged in response to the DV BIA initiatives. While some are arguably re-branding exercises, the article focuses on innovative social enterprise and partnership activities carried out by two of the areas.

[...] there are small steps individual businesses in areas struggling with drug use and homelessness can take. One of the biggest things is for street-front businesses to report incidents. That doesn't mean calling 911 every time someone is acting erratically, [...] there are a number of other numbers to call or ways to report online. But if issues go unreported, it becomes difficult to make a case for resources to be directed to a community. Police resources are incredibly stretched and if we have no data showing our challenges, it's hard to get more funding. If we don't report, we're disadvantaging ourselves as a business community (Rendell, 2017).

Not in the business of solving these crises/problems – it's not their job and they can't – BIAs have focused on the performance of “clean and safe” areas. Seen as a baseline for all other improvement (see Figure 2; Lippert, 2012), the removal of risk and refuse is a *matter of concern* for BIAs. As “stewards of the community”, the clean and safe passage they enable through commercial zones purport to protect the economic potential and vitality of the area (Brooks, 2008). This market-based approach to seeing and understanding matters of concerns, these partial and political⁸⁶ accounts, stirs up existing practices of valuation (Doganova & Karnøe, 2015). These aforementioned practices conversely result in the evaluation and categorization of threats to the area and mandate. BIAs as malls without walls come to exemplify some of the logics of *new military urbanism* (Graham, 2011; Graham & Marvin, 2001). From wayfinding, signage and brandscapes, to target hardening and beautification, to ambassadors, clean teams and private security programs –these surface level initiatives target property crime, cleanliness and disorder. A particular *securityscape* (Murakami Wood & Ball, 2013) or *cultural performances of security* (Graham, 2011) – similar to processes of assetization, securitization renders *threats* (matters of concern) visible and quantifiable. Through counting and accounting these risks BIA programs target perceived threats to assets. On the surface seemingly mundane and concerned with litter and graffiti, an underlying “security threat discourse” that equates refuse with risk,

⁸⁶ Although some businesses and BIA are trying to adopt more safe and inclusive practices, ultimately a concern with creating and maintaining value aligns with capitalist and neoliberal projects. As noted by Smith (1996), BIAs are participants in *revanchist politics*.

justifies the sanitizing and securitizing of urban spaces and experiences (Coleman, 2004; Davis, 1990).

As discussed, cities, BIAs and the private sector, in attempting to address various crises and risks, have adopted a range of market and tech-based solutions which often challenge or reaffirm existing roles or responsibilities surrounding governance and service delivery. In this chapter, I focus on the use of a C2G application that five Vancouver BIAs have incorporated into their existing programs in order to make their clean and safe mandate doable, and by extension all of their other mandates more doable. While an implicit undercurrent in existing work – that is how the value of an area is connected to perceptions cleanliness and safety – I unpack the role of securitization⁸⁷ in the valuation practices used to create and manage value. I theoretically and empirically examine how, through valuation practices BIAs render these problems as well as their work visible – specifically, through the use of partial applications, together with their limitations, BIAs navigate this splintered urban frontier. I contend that these BIA practices further entangle valuation and securitization, and that their edge and image work serve to shore up responsibilities and perform relations of visibility.

6.2 Roles and Responsibilities: Tensions and Tensor Bandages

As forms of new public management, questions of jurisdiction and responsibility undergird most BIA programs and mandates. Not limited to their clean and safe mandates or to the delivery of service, competing and divergent understandings of roles and responsibilities serve as points of tension. A response to, but also a source of administrative fragmentation, the changing BIA model has extended as well as amplified particular roles, explained the Vancouver BIA program

⁸⁷ Securitization is defined as the “regulation and fortification of buildings, spaces and things” (Lippert & Walby, 2013).

coordinator, “More than just revitalization model [...] BIAs have become a form of city building, a powerful model to increase and maintain market share and value.” While issues and foci change, their enduring practice is to create and manage value. Splintered and splintering, central to their project is the alignment of various constituents and constituencies towards tellable common visions, goals and mandates. This additional layer of governance, to make areas governable requires actors be “framed” or brought into view. The City BIA program coordinator explained the connection between value and framing,

In retail districts the role of BIAs is to bring customer traffic to the street and promote visibility. It’s a lot easier for a BIA to provide value, and to be able to show they provided value. When you get off the main street, crime and social issues often bleed from industrial areas into commercial areas, so some BIAs have included those industrial districts to address those issues.

To them, the retail brandscape was more ordered, specifically around aesthetic qualities meant to promote consumption. Conversely there was an explicit connection between industrial areas and disorder. With very few “main streets”, most BIA staff members explained their areas in terms of a particular retail, industrial, commercial and residential mix. Through the districting of space or initial alignment of constituents, some Vancouver BIAs recognized the “right mix” of constituents required to make their mandates doable. This *capture of additional spaces* (Graham, 2011) and membership extended clean and safe rationalities and expanded consumptive zones. In other words, by adding industrial area to their constituency, BIAs were able to provide better stewardship of, and through their areas.

The City BIA program coordinator, agreeing with the premise of clean and safe passage explained,

You can't run a business when your customers don't feel comfortable shopping on the street, or if there's someone sleeping across the doorway, or panhandling right beside your business. It's an interesting social thing that we have to deal with. In some ways, the BIAs have been forced into that issue because there's nobody else really having their back. It's a complicated issue and there's rights on both sides.

With that, not only did the City BIA program coordinator outline perceived threats to BIAs, but the coordinator also gave an account of BIA responsabilization. In order to maintain and create value, what else are businesses to do? Understood as an “interesting and complicated social issue” by the city official, the production of clean and safe (specifically move-along practices by BIAs) has been a point of contention in Vancouver since 2008.⁸⁸ The City BIA program coordinator, making reference to the “resolution”, detailed the roles and responsibilities of BIA clean and safe programs,

I know our council strongly believes that policing should be done by police, but there are other things that communities can do. Supplementary things, the intent is not to replace police. They [BIAs] are not enforcement, they know their bounds. They are eyes and ears. They are recording data. They are tracking hotspots. They are cleaning. They are referral agencies. They are calling police when they see something that needs police support. They're doing a range of things that deal with safety and security issues without being police, and that's an issue.

To the BIA program coordinator, it also seemed that it was not policing, if it was not carried out by police. Rather than focus on the practices or their implications/affect, policing was defined in terms of the legitimacy of the actor. With this logic already complicated by Weber's writing on politics and bureaucracy, BIAs as non-state actors delineated sanctioned practice. But by other names, central policing practices – data collection, hotspot tracking, and referrals – were cast as “supplementary” things BIAs could do. This discourse of supplementing was used by almost

⁸⁸ In 2008, the Vancouver Area Network of Drug Users (VANDU) filed a complaint with the B.C. Human Rights Tribunal against the DV BIA. The case concerned the move-along practices of indigenous people with physical and mental health disabilities from outside of a business and park in the area (Burgmann, 2015). In 2010 the case was dismissed by the B.C. Human Rights Tribunal but was submitted to the B.C. Supreme Court in 2012. In 2015 the court found the DV BIA's practice in violation of the B.C. Human Rights Code. The DV BIA proceeded to appeal this verdict with the B.C. Court of Appeal in 2018 overturning the lower court's ruling.

every BIA member interviewed. Not privatizing or “taking over”, they conceived of their actions as aligned with the city. One community safety manager explained,

I think there’s a lot that the city maybe can’t manage right now that we can help with. I don’t want to say take over, but... help. [...] Everybody wants a perfect city but unless they help themselves, you’re never going to see it.

All BIAs, which were on generally very good terms with the city, noted a common goal, something like a “perfect”, “cleaner”, or “safer” city. Groups of collective action BIAs have been cast as successful, independent economic actors, and exemplars of self-help (Brooks & Strange, 2011). Once again troubling roles, legitimacy is bound up with an ethic of responsibility. This alignment of moral and political projects emphasizes a particular ethic of enterprise. While most were resolved to helping out, others suggested that the level of city service they received was not enough. As one executive director explained,

BIAs have evolved to become stewards of our communities. We are providing services that I think should be provided by the city, like cleaning and all of that kind of stuff. We not only make them look clean and nice; we hopefully provide some sort of safety through our own program. In one way, it has been a little frustrating that it seems that we are being downloaded on more and more. The city just doesn’t have the capacity to do what we are doing. Even if they did, I don’t think it would be as consistent or done as well as what we do.

The executive director, noting the changing role of BIAs, outlined various services they provided. Be it, cleaning and safety to programing and events, they felt that the city was downloading its responsibilities. While to some degree, BIAs could be conceptualized in terms of responsabilization (Garland, 1996; Rose 2000) or governing at a distance (Rose, 1990; Rose et al., 2006), the role of public services (albeit in some cases “not enough”) troubles this vein of theorizing.⁸⁹ On the surface, BIAs’ clean and safe, and security modes appear to be private

⁸⁹ As assemblages of various public and private constituents and constituencies, as argued in this chapter, a more nuance focused on centred on practices needs to be considered.

endeavours, as argued by Sleiman and Lippert (2010), but they are actually “anchored” by public services (in their case public police). In addition to public services, in most instances public funds constitute the basis of BIA programs.⁹⁰ Like other forms of securitization, its performance is not doable by one constituent alone, rather it requires an assemblage of actors to produce a semblance⁹¹ of it. Enter VanConnect, a novel case for unpacking the tensions surrounding clean and safe roles and responsibilities.

6.3 A Tool for *the* Job: Uses and Users of VanConnect

Like many cities, Vancouver has turned towards “smart city” or “e-government” solutions to address mobility and safety and security concerns (Smarter Together, 2017). As the CTO of Vancouver explained – with a focus on the “convergence of the cyber-physical” (specifically city Wi-Fi, C2G apps, and internal city dashboard) and the data from these initiatives – they sought “develop insight” and better “inform decision making and governance.”

Initially launched in 2015, the VanConnect app was designed as a digital compliment to the City’s 311 call line and generates data for the internal dashboard. The app offers a range of services including: service requests, push notifications (e.g., updates, news and emergency info), city directories, maps of amenities, and notice of events and more. However, the main use-case is the service request feature. Citizens (defined through the app as users with accounts) are encouraged to log specific public realm maintenance issues including: abandoned vehicles,

⁹⁰For example, many cities have public grants and BIA financial incentives for: commercial façade improvement, murals and street art, capital streetscape improvement, and streetscape and master plan programs. As mentioned in Chapter 5, data, compelling stories, and submissions/awards (see: FDBIA, 2016a) are often critical to receiving funds.

⁹¹ Semblance is used here to reference a strong vein of anti-security literature, which contends security is an illusion. The more security is discussed, the less attention is paid to the material foundations of emancipation and the more we become complicit in the exercise of police powers (Neocleous & Rigakos, 2011). Security is a special commodity, which produces its own fetish, concretizing ephemeral insecurities under capitalist social relations (Neocleous & Rigakos, 2011).

animals, garbage and litter, graffiti, lights, signals and signs, noise, parks, property, snow and ice,⁹² storms, streets and sidewalks, trees and vegetation, and water and sewage. These broader categories each have sub-sections allowing for further specification (see Figure 19). For example, in logging a piece of graffiti, the user must specify the asset type such as: buildings, bus shelters, Canada post boxes, dumpsters, in a park, newspaper boxes, poles and signs, streets or sidewalks, utility boxes and other property.⁹³ From there, the user geotags the issue, and adds a photo as well as description. Enabling more precise and effective data, the geospatial and visual capabilities of the app have made it a useful resource for logging and placing issues in real time.

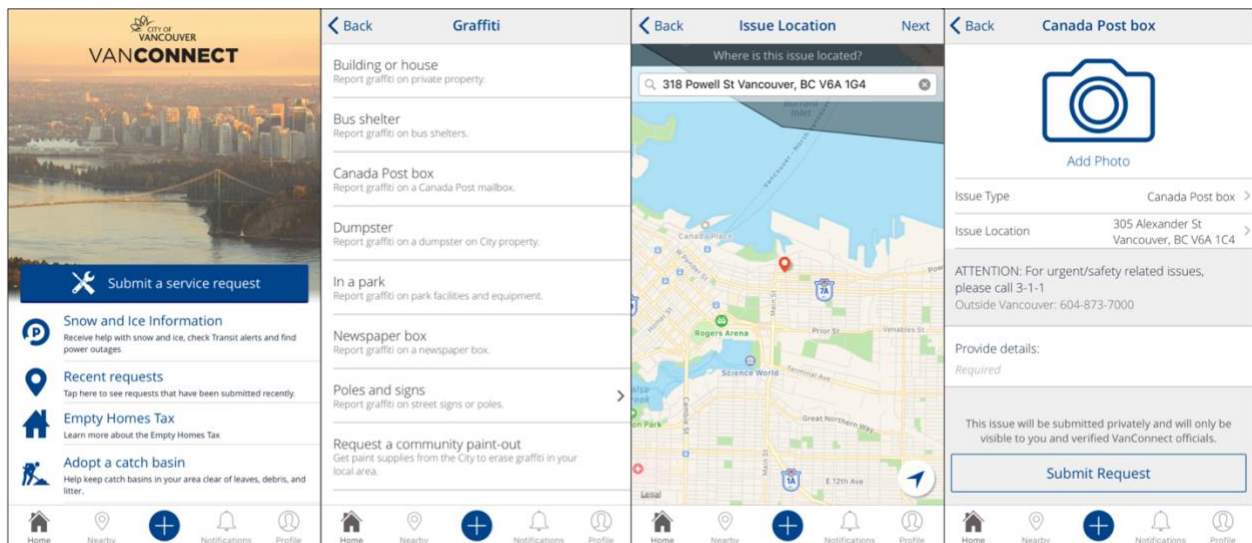


Figure 19. VanConnect Graffiti Submission Process

Once submitted and received, service requests are directed to the appropriate agency responsible for the asset, and the citizen-user is given real-time status updates and notified when the request is completed. Figure 20 depicts this process, as well as the app’s “nearby” feature, which enables other users to view the status and inputted details of in-progress and completed

⁹² Seasonal issues have and continue to be added to the app.

⁹³ It is also interesting to note that under the graffiti page/tab citizens can request, twice a year, a free paint-out or a free paint voucher to remove the graffiti on their property.

requests.⁹⁴ Inscribed with various forms of transparency and accountability, users are also able to “follow”, “comment” and “share” (via email and Facebook) requests for service.

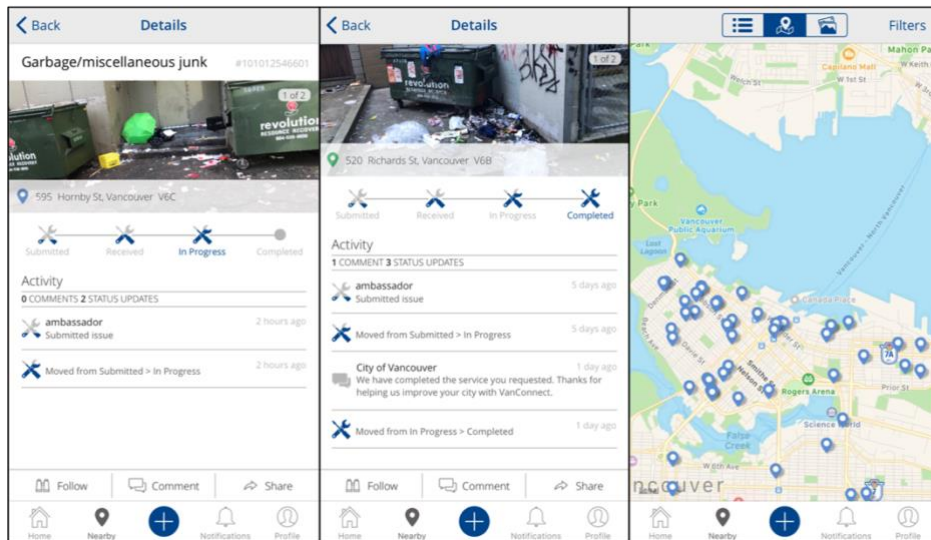


Figure 20. VanConnect, In-Progress, Completed and Nearby Features

Of the approximately 130 request categories⁹⁵ Figure 21 depicts the top 10 requests, with abandoned items accounting for 31%, garbage accounting for 25%, and graffiti accounting for 25%.

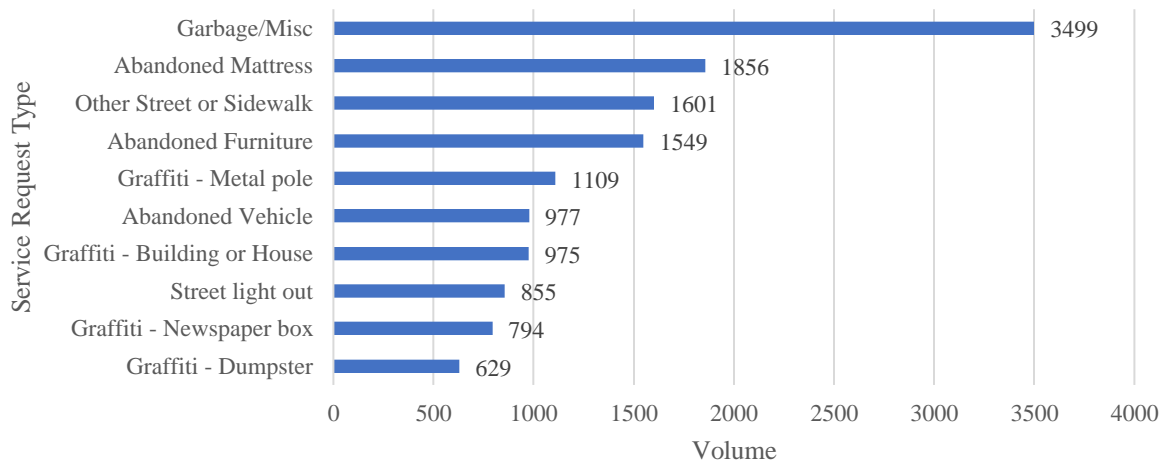


Figure 21. Top 10 Van Connect Service Requests (City of Vancouver, 2016)

⁹⁴ As seen in Figure 19, the app provides various forms of public facing data. By making this public, it performs particular accountability, visibility and surveillant relations. The forms of surveillance (lateral, synoptic sousveillant, etc.) that this platform enables over the public realm, city workers, and app users will be the subject of a small follow-up project, and subsequent article. This dissertation, however, focuses on a specific user group.

⁹⁵ As of spring 2019.

Designed to improve citizen services and engagement, democratize access and update city governance, the director of digital platforms narrated the use and innovation of the “we-government” app,

You’re walking down the street and you see a piece of graffiti. As a resident, you tend not to think about what piece of property is that on? There are multiple overlapping jurisdictions in pretty much every city, right? Prior to this, we would take a call about, say, a piece of graffiti on a post box which is seen on our system for a number of days, stretched to a number of weeks, until we would find the right contact to handle the post to say, “Hey, we got a call about a graffiti on your post box.” It may or may not transfer across to them in a timely fashion. Now, with VanConnect, what we’ve been able to do is take the end point of that service and activate an email trigger to whoever has jurisdiction or is the correct owner of the asset, and say, “Hey, we’ve received this. We’ve done our due diligence by passing it to you. There you go.” Another really good example is, we’ve got an issue whether it’s one or many, but an issue with needles being discarded in our parks and alleyways, so things like that. Again, you walk down the street or you’re in a park and as a resident of the city of Vancouver, you don’t know who owns that needle pickup function, but you want to tell someone, so you tell the city because they have an app. It allows you to do that. The ownership of that, I think, it belongs with our health authority or a subgroup of our health authority. Prior to that, we had a very clunky way of writing to the health authority, know that we have received a service request of that nature, now we can type that right through to them and they get it almost in real time as the citizens.

This narration explained elements of both inscription and governance at a distance. Positioned as a more convenient and user-friendly experience (in comparison to 311 call centres), the director explained how the app helped “residents” navigate jurisdictions and the fragmentation of services. While not the agencies primarily responsible for mailboxes or needle pick up, for citizens, the app – at least in terms of the included assets categories – took the guesswork out of jurisdictional boundaries. In a sense, this reporting tool brought elements of the public realm back under the city’s purview. With categories, forms and processes, the City framed its constituency, and in doing so inscribed its own roles and responsibilities into the app. Despite the privatization or outsourcing of service delivery to a variety of agencies, centralized reporting

gave city officials a “better” account of the public realm. This assembling of partial data and platforms, to the City, produced greater organization reliability, and representation.

For example, in a promotional video, the then City manager, explained the oversight and accountability features of the city dashboard.

About a year ago, I saw a bunch of emails coming in through the public, complaining to me about our level of service in picking up garbage. That was the first notification I had we had a bit of an issue there, and that was a bit frustrating to me. I called our CTO and said, “What’s going on? How can you help me get a better pulse of our service to the public?” That was the beginning of the journey to create this dashboard, which is now in my office and tells me at any moment where we’re at with our levels and service, I can click on one of the areas, and dive in to see where we might have flooding, where we want to have rolling calls and then it allows me to make some calls to the business owners to look into it.

To the city manager, the dashboard enabled him to get to the know the city, *as it actually is*, at any moment. This way of seeing, is aligned with organizational relations and realities (Lynch 1985; Neyland & Coopmans, 2014). Based in a realist ontology, as argued by Kitchin et al., (2015), the dashboard and other urban (big) data is positioned as an effective way to “learn and manage through measurement” (p. 13). Determinations of what *is*, from this organizational perspective are connected to programmatic, pragmatic, and prescriptive articulations of what *to do* next (Metzger & Wiberg, 2018; Neyland & Coopmans, 2014). As explained by the city manager “seeing the problem” enabled them to look into it.

Unlike the app developers accounts, promotional material, and even the app interface – all of which inscribed discourses of citizenship, taxpayer, individualism and homeownership – the City manager’s reference to business owners highlights an under-acknowledged user group. While “citizens”, the intended users of the app account for 44% of calls for service, in 2016

BIAs made the second largest user group (Figure 22). The BIAs accounted for 36% of calls for services in 2016, and as a user group has continued to increase (City of Vancouver, 2016).⁹⁶

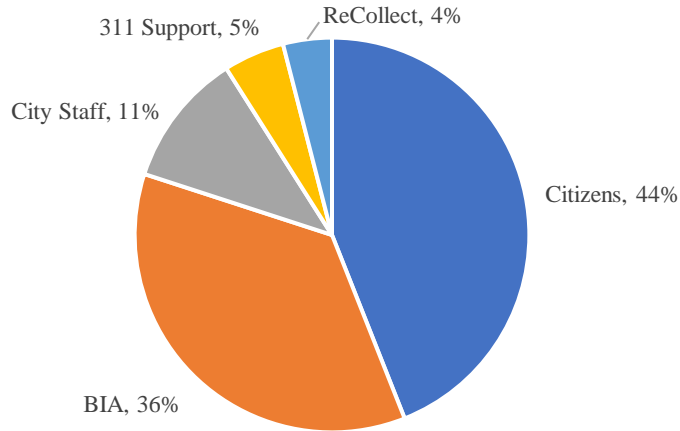


Figure 22. Breakdown of all Service Requests by Users (City of Vancouver, 2016)

From this angle, some, but not all BIAs appear as frequent users and contributors to the app, as Vancouver’s director of digital platforms explained,

Obviously, the BIA component is huge. The BIA is one of our largest, as a group, submitters of service requests prior to the app. They would call up 311, spend an hour on the phone going through a list of things, or in the past they used to send me the spreadsheet or the list of things going on in their particular area. Now they’ve taken to using the app in a pretty big way [...] some are heavy users and some just don’t care.

Seen as cost-effective and time-saving, they went on to say that the app fostered a sense of City (organizational) accountability, as well as mutual accountability between the BIAs and City. The director of digital platforms went on to state,

⁹⁶ I speculate that BIA calls for service are potentially much larger than 36%. First, these statistics are from 2016, and the success of larger BIAs has served to enrol other BIAs (see below). Second, and harder to account for, many BIA staff (e.g., non-ambassadors/ clean team members) stated during interviews that would use their personal phones/accounts to log requests. While clean team and ambassadors shared devices and accounts (making BIA activity easier to determine) executive directors and other staff submitting requests on their personal accounts during their commute or visits to membership would not be counted by the City as “BIA activity.”

I just think for specifically with the BIA it's been a very positive experience both for the city and for the BIAs. It gives them a much easier, more seamless, bulk way to submit their service requests to the city and we love it because it's not tying up an agent for multiple hours at a time or someone doesn't have to pick apart a spreadsheet that a BIA has put together about the items in their neighborhood that they're concerned about. It's much more real time they can track the status of the service requests they submitted. It's much better customer service experience I think for us as a city and for the BIAs themselves to really pass on to the people that attracted their business. I think it's a win in that regard, I think for us its really about getting the word out there and getting BIAs to advocate for it which will help us as well.

Understood as customers, rather than citizens, according to the director of digital platforms, VanConnect updated and real-timed accountability relations. As a key constituent, and predominately homogenous user group, their use of the app was also beneficial to the City. BIAs served as advocates for the digital solution, and in many cases onboarded other users (e.g., business and other BIAs). Furthermore, with a clear BIA-based use-case and a substantial pool of daily active users, they helped the city demonstrate return on investment. The app was being used.

6.4 Delegated Cleaning: BIA Uses

VanConnect, and its precursor/companion 311 – both a means of accessing city services and fulfilling mandates of cleaning and safety – were built into many BIA programs, explained the BIA program coordinator,

The VanConnect app has been very well received. It used to be, you had to call 311 and log-on.... Some of the BIA's main activity in safety and security, graffiti removal and garbage clean up, isn't necessary running the program itself. It started by calling through 311 and getting the city to do that to place order on properties which don't remove graffiti and to create these databases of them and keep sending them in and to complain about garbage in the alleys, and to complain about this that and the other thing. Then with the VanConnect app it's so much easier to be able to log that stuff and the city likes it too, because it's a lot easier to track the data on that is coming in and very, very well received.

The Vancouver BIA program coordinator, tempering earlier comments about downloading and responsabilization, stressed city services should be an element of BIA programs, as cleaning and safety are not their jobs alone. They reaffirmed the City as the “anchor” for programing. While the app developers envisioned citizen users and use-cases, the director of digital platforms, had some understanding of how BIA staff were using the app,

For example, property use inspectors, sorry street use inspectors? They would typically walk, I guess, they patrol or drive. I don't know how they get around. They might see somebody inappropriately using a sidewalk or a street. I don't know, exactly what, let's say they have a patio where they shouldn't, or whatever it is. They'll report that on a piece of paper. Bring it back to their desk. Put it into an Excel spreadsheet. Send it off to the relevant group that should be taking care of ticketing. It's really disjointed not very clear process. They now use VanConnect for service requests. They can go snap a picture of whatever the infraction is, along with details about it. It's all geo-located and stored in one location for them. And they can go on to the next, so it's cut down on some of the pieces of paper and work.

In this hypothetical example, like the previous “residential” one, the director once again made reference to disjointed and unclear processes. The BIA use of the app helped them navigate the splintering urbanism they were in part responsible for. The director of digital platforms highlighted the time saving features of the app, and evoked market logics when explaining efficiency for the “customer-users”. Specifically, the director understood the BIA use of the app in terms of a “property use inspector” navigating the public and private realm through patrol. By having it “all in one place”, the app automated the call for service process. However, the BIA use of the app was not limited to “inspectors”, as each BIAs had incorporated VanConnect into their security, community safety and policing, ambassador programing, and for some staff members into their daily commute.⁹⁷

⁹⁷ In a sense, enterprising employees come to practice the mandates of their enterprise. A performance of self as enterprise in a literal sense (Kelly, 2013).

While partially constrained by the app’s capabilities (see section 6.5.1), all of the five studied BIAs, as well as many of the 22 BIAs in Vancouver made use of the VanConnect app – although through different programs, to various degrees, and for different purposes. Nonetheless, all engaged in counting and accounting practices with VanConnect. At one end of the use spectrum, one BIA had extensively integrated the use of VanConnect into their longstanding community policing programs. To the executive director, logging every overflowing garbage bin and every discarded needle kept their area clean and safe. Another executive director explained VanConnect’s integration into program operations,

We have a pretty well-worn hierarchy of how we report these different things. If it’s, say, graffiti on a BIA business, it’ll go directly to our graffiti removal company, Goodbye Graffiti. If it’s not, it goes to 311 [via VanConnect]. If it’s debris on public property, that would be reported to 311 [via VanConnect], if it’s not, we have to figure out what we can do about that. If there’s a safety and security issue we can have our patrollers go in, within five minutes, to try to provide at least some support or find out what’s going on with the person in question. Our team also does needle pickup, especially before opening hours, just trying to deal with small-scale acute issues as quickly as possible.

This executive director, versed in the fragmentation of services, explained the various in-house, contracted and city-based constituents (i.e., “security agencies”) that they had assembled as part of their clean and safe team. In explaining the activities of the team, the director also characterized the various threats to the public realm that they dealt with: graffiti, debris, needle collection. Framing the work of their patrollers as getting ready for business hours, their practices centred on the clean and safe passage of business members and their clients.

While their security program was not a frequent user of the app in comparison to others one executive director explained, framing their program’s ambitions in terms of the app.

We do use 311 and VanConnect as part of my security program, but that hasn't been as effective as I would like it to be. I want them to be reporting needles, illegal dumping, whether it's big items like sofas and mattresses, reporting graffiti, reporting anything like that, vandalism on street furniture. They're not as active on it as they should be. I also do it, too. If I'm out on the street, I'll take a photo of something in front of a store or building. Then, I submit it. For the most part, I would say we're doing pretty good, but logging could be improved.

Aligned with larger organization mandates, as discussed below, the director desired more reporting. Furthermore, VanConnect, positioned as a tool for making clean and safe mandates more doable was incorporated into their security team, once again reinforcing the connection between clean, safe, and secure. Similarly, they also articulated a hierarchy of threats and like other BIAs, discarded needles and illegal dumping were primary concerns, while graffiti and vandalism were lower down the list, but still important. Through the BIAs practices of counting and accounting (as well as related practices of monitoring, recording, collecting and reporting), the streets emerge as critical infrastructure, and the matters of fact upon them were in need of securing. As argued by Aradau (2010) securitization as a practice of materialization, configures materials and creates new hierarchies and forms of exclusion. Matter of care for the space's security marginalizes, erases, and neglects experiences and relations within it (Murphy, 2015). Like practices of assetization, securitization renders spaces more valuable, in its case when devoid of particular liabilities of threats, threats to creation and maintenance of value as perceived by the BIA.

6.5 A Partial Application

In Vancouver "raising the standard" of assets⁹⁸ primarily focused on cleanliness and safety. This was partially due to the fact that many of assets were both owned and defined by the City.

⁹⁸ In part, this rudimentary comparison may be explained in terms of the diversity of the areas in the Vancouver case, the scale of the central business district, but also, the scripted non-BIA developed and controlled app for asset management (e.g., GeoPal). However, it would be far too simplistic to suggest that BIAs in Vancouver were not

Assetization, was partially decided by the City and inscribed in VanConnect.⁹⁹ On the one hand, all of the BIAs welcomed and applauded the City-led and City-operated innovative initiative. VanConnect not only enabled them to direct services to their areas, but also enabled them to incorporate sophisticated smarter technology into their daily practices – without having to build or maintain the system. However, on the other hand, many BIA staff members noted the limitations of VanConnect for their organizational purposes. As detailed in the opening vignette, during patrols with ambassadors and clean teams, all of them mentioned the two or more devices (e.g., work phone, personal phone, tablets, and radios) they carried, and the specific purpose of each. For example, some used a work phone for VanConnect, a tablet for a proprietary platform, a radio for internal communication, and a cellphone for emergency and 311 calls (e.g., for services not supported by VanConnect app). Some staff even remarked on wanting to streamline the process, but admitted, “it just makes sense, that’s how these agencies and city services work.” An ambassador, making reference to the “splintering streetscape”, explained the workaround the BIA had undertaken. VanConnect and the other tools served as a “bypass strategy,” networking particular constituents with public and private service delivery. BIAs as “premium spaces” and the product of by-pass strategies, (re)perform entailed practices reinforcing a vicious cycle of splintering (Graham & Marvin, 2001).

While some had workarounds, drawing connections between the limitations of the app and the aforementioned uses – counting and accounting – other BIA staff members suggested

concerned with “raising the standard” of assets in their areas. All of the studied BIAs engaged in beautification projects. Small scale ones included custom community painted tree planters, decorative lighting, pop-up parklets, and murals. The larger BIAs, comparable to the big three in Toronto, are all engaged in capital projects, re-imagining city squares and activating alleyways. While not included in my dissertation, a forthcoming publication addresses travelling practices and impact of alley activation in Vancouver.

⁹⁹ Partial, since 1) BIAs engaged in their own assetization practices, by counting and accounting certain matters over others with the app, and 2) BIAs engaged in supplementary counting and accounting practices.

features they would like to see built into the app, as well as, effective channels for incorporating user feedback. For example, one community safety manager asked,

But how much are they working with the people that are actually using it? We don't get any input. We've been through them once and talked with them, but there should be constant feedback. They should be looking at the businesses to drive the app. Then the public will get more use from the data, and you'll see the reports come in.

As a key constituent for the app's success, to some BIA staff, their use and advocacy for the app meant they could have greater say in its future, or at least its functionality. For example, some BIAs saw utility in being able to log encampments, log street-related activities, send push notifications during emergencies, and suggest locations for new assets. As in Toronto, and referenced in the above quotes, BIAs also considered potential threats to the public realm – specifically in terms of “safety and security issues”. However, VanConnect did not support the logging of people or “street-related activities”.¹⁰⁰ The director of digital platforms, specifically referencing the logging of encampments explained that these activities were far from the jurisdiction or abilities of the app. As noted by, Flanagan, Howe, & Nissenbaum (2008) designers inscribed particular values into the app, which may not have aligned with all constituents and uses. The City, engaging in a level of *value sensitive design*, responded to BIA requests for input, and created a decision tree (see Figure 23) in order to field suggestions and create a standard process.

¹⁰⁰ However, as detailed in section 6.5.1 BIA staff did log these events (e.g., panhandling, rough sleeping, trespassing etc.), but not with the VanConnect App.

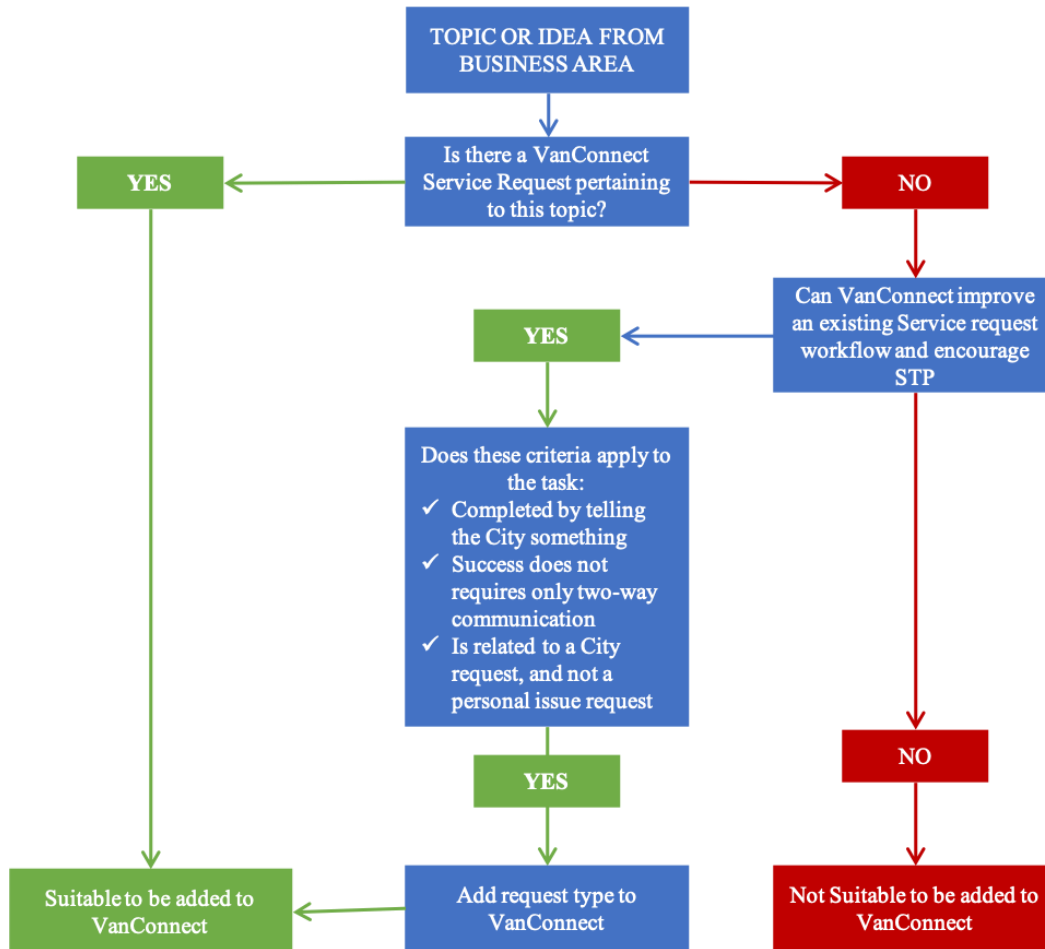


Figure 23. VanConnect Decision Tree (City of Vancouver, 2016)

These practices demonstrated levels of, or attempts at producing, mutual accountability between the City and BIAs. Features that would improve service requests, and decrease workflow, and promote STP were seen as suitable for addition. To the City, “improvement” included the addition of features which were ends in themselves, it did not create additional communication or work, and must be aligned with City mandates. However, in some cases, the City was open to changing service delivery practices, especially if it meant keeping key user groups engaged and using the app. To make VanConnect a viable digital solution (e.g., ensure ROI, reduce costs, and continue to expand users) the City acknowledged the role of BIAs in this process. While City services anchored BIA programs – making clean and safe mandates more doable – BIAs as key constituents for the app’s success complicated the anchor and steward

position. Like other “we-government” initiatives, through its affordances and limitations, (re)produce struggles over (knowledge) politics in the splintered streetscape (Baykurt, 2011).

Partially in response to these affordances and limitations, all of the BIAs went beyond the (ac)counting features of VanConnect. Rather than outmode previous valuation practices, the app became another layer of practice. From spreadsheets to proprietary platforms, all of the BIAs engaged in additional data collection, as one executive director explained,

We use [VanConnect] in all of our programs, when [staff have] finished their shifts, we put that data into a spreadsheet or program, and then those stats will go into our reports. We try to collect all that data methodically. We have to compare some stats and other things that we use. Each staff member here is responsible to make sure that the program is funneling the information into where it needs to go.

As part of the reporting process, the executive director explained that the BIAs also kept additional contextual records for their own counting purposes, and to ensure that data and statistics were routed to the appropriate agency. A director of operations further justified these supplementary practices,

We also track it internally, because not everything is recorded by the city. We have a self-directed app that we developed, and every time we see something that’s happened – like a light has gone out, or a banner is torn, or something needs to be replaced – we report it as well for our own records, and also to audit how quickly things are being addressed by the city and what they are. We track graffiti, private and public. If it’s public, we report to 311. If it’s private, we deal with it, and we try to work with the businesses to take ownership of it. We have special deals with a company that deals with graffiti on private property in the area. And we also try to get people to take advantage of different city programs to deal with it.

The director explained that “not everything is recorded by the city”. “Everything”, in this case, demonstrating a disconnect between the goals and concerns of the BIA with those of the City. Everything also reflects *administrative fragmentation* in urban governance, since the City was not necessarily concerned with private or potentially “personal issues”. Furthermore, additional accounting – keeping clear records of their accounts to the City as well as to other activities –

was used to promote organizational accountability and transparency to its stakeholders, as well as demonstrate the use of services and other city programs (e.g., paint voucher, needle collection, etc.). One Vancouver BIA even went so far as to develop their own propriety software,

We developed [our application] internally. We have a staff member that built it from the ground up. It's an app that's been in process since 2006. It began on a PalmPilot, and it has migrated from that to a smartphone, to an iPad, and then we're going to put it on iPhone. Our clean and safe teams use it to help identify areas that need a little bit more attention. For example, they might say, "This area tends to have a lot of needles, so we should let this group [a group we contract or the city] know that they need to spend a little bit more time here."

These supplementary, partial applications are not seen as a replacement to VanConnect, nor is there a passion (either from the BIAs or the City) to make these two systems interoperable, as in other cities. As explained by the community safety manager,

I don't see us being able to, or wanting to, integrate our backend system with the City. We will use VanConnect. We will source when we use VanConnect. It would be too challenging to replace GeoDash and VanConnect, because they're such vital systems, for what we do.

Instead, purpose specific tools and the resulting data were considered far more useful for navigating the splintering and fragmented streetscape. For example, while using VanConnect to log graffiti as mentioned, one BIA had a private in-house graffiti app, as well as a contracted private company to maintain the façades of public and private property. While at present, the BIAs had no intention of increasing interoperability between their systems, third party contractors were piloting the idea with the city. Partially based on a recommendation by the BIA, the City had enabled STP with a national private graffiti company through its back-end system. Rather than processing and outsourcing service requests, STP sought to improve workflow and efficiency and cut costs. Considered a "success story" by all stakeholders involved, this may signal greater interoperability to come.

While convergence of these forms of computing is possible, this is not necessarily practical or desirable (Greenfield, 2006; Kitchin & Dodge, 2011). For the BIAs, while the STP of graffiti aligned to the mandates of both parties, in other cases keeping systems separate was beneficial. Incompatible ontologically and from an operational perspective, these oligoptic platforms on their own, and when added together offer partial tools and insights. When explaining onboarding VanConnect and additional software into their clean and safe programs one executive director explained,

We want to get to a level where everything is online and easy to access – seeing data and manipulating it. I don't mean manipulating it to show us certain things, I mean, I want to see a breakdown of activity by week, month, or certain categories. I want to have that, so that I can get better according to my knowledge of what's going on.

Similar to the position of the City manager, the executive director claimed the data would enable them to see what was happening – down to the month, week or day. The panoptic promises of (big) data urban (see Hill 2013; Kitchin 2014a), in practice amount to oligoptic ways of seeing. Unlike panopticism, these narrow and partial sight lines “see too little to feed the megalomania of the inspector or the paranoia of the inspected, but what they see, they see it well” (Latour, 2005, p. 181). These are oligoptic in numerous respects, with their selected focus on matters of concern, narrow applicability of these applications, and the oligoptic range of the applications. However, these partial and framed accounts, are presented as impartial. As eluded to with the executive director's clarification of “manipulation”, these *technologies of calculation* (Doganova & Muniesa, 2015) are understood to produce impartial and objective accounts. Despite knowing how the data was counted, applications are seen to offer mechanical objectivity, that produces distant, detached, impartial and transparent data (Kitchin, et al., 2015; Porter, 1995). While recognizing the framing carried out with analysis, especially to achieve a particular aim; BIA

staff did not acknowledge the framing and inscription or data collection. Instead, from a realist ontology and epistemology, these partial applications made for impartial accounts. Rather than all-encompassing applications, these plug-and-play apps reflect the jurisdictional bounds of the BIAs themselves.

6.6 Relations of Visibility: Seeing Value

While acknowledging these apps as “the right tool” for the job, BIAs not only supplemented the City through programs, but also through data. The community safety manager, discussing their clean and safe mandate and programs, reflected on its impact.

The cleanliness side of things helps everybody. It helps me within the safety realm. It’s visible. People can see it. People can see what we do. We don’t have to justify it with data, but we can and that helps too, there are multiple ways people see it.

With this, the safety manager recounted the logics behind clean and safe. Cleanliness was a proxy measure for safety. But beyond a measure, its ability to be discerned was of importance. The fact people could see the cleanliness of an area, the securing of space, was understood as visual evidence. Similar to numbers, images and image work prefigure responses and the dispersing of responsibility (Neyland & Coopmans, 2014). To the community safety director, drawing stronger connections between visual evidence and data, these supplementary practices promote relations of visibility. These relations are between objects, places and people, which entail the “domains of aesthetics (relations of perception) and politics (relations of power)” (Brighenti, 2007). These zones of consumption, or consumer society more generally are “characterized by a cancerous growth of vision, measuring everything by its ability to show or be shown . . . a sort of epic of the eye and the impulse to read” (De Certeau, 1984, p. xxi). Both a metaphor of knowledge, but also a social process, comparable to questions of who or what

counts, visibility posits who or what sees (Lyon, 2007).¹⁰¹ In effect, through (ac)counting and other practices BIAs made their work, problems and remedies visible – and therefore doable. Now seen, and hailing particular responses, BIAs are better able to *secure* work, problems and remedies.

Not necessarily a means of keeping score, these technologies and the data they produced were seen as means of improving the operational work of BIAs. As illustrated in these respective quotes from an executive director and community safety manager, most of the BIAs explained their supplementary accounting in this way,

We like our information. We track everything. We know the number of referrals we've done last year overall. We know exactly where we've sent people and we do that with almost all of our programs. [For example,] we use an iPad for tracking in our speed watch program. We track the number of vehicles and the vehicle speeds, so we know how fast they're going. It's 10 kilometers, 20 kilometers, 30 kilometers, 40 kilometers over the speed limit. Then that all gets exported into an Excel spreadsheet and then a staff member will make sure that goes in. We do six-month report; it includes a ton of data and information like that for our funders.

We're trying to use a lot of technology. It makes it more efficient and effective for us. Then we can use the data to show what's happening.

Once again reproducing market-based logic, this technology and the practices it enabled were seen in terms of efficiency and ROI, as well as assetization. As stated above, having their own records, became a means of (ac)counting beyond the narrow categories of VanConnect. These additional accounts became ways to assetize BIAs practices not counted by the app or other City measures. In other words, although not counted in VanConnect, by counting their activities

¹⁰¹ To be clear, I acknowledge there are clear distinctions between numeric and visual evidence. However, as argued by Neyland and Coopmans, “practical and metaphorical slippage between making things visible, making them count and instituting accountable ways of dealing with them, indicates this intertwining of the visual and accountability.” Cognizant of the different epistemological underpinnings of seeing and counting, parallels could be drawn here between Foucault's (1972) distinction *visible* and *articulable*. However, as furthered by Brighenti (2007) and aligning with Espeland and Lom's (2015) notion of *relations of visibility* throughout, visibility is a field of assembled relations.

outside of the VanConnect app, BIAs account for their supplementary activity – their “improvements” in the area. Through these supplementary practices, other things were made to count. For example, as part of an ambassador program, one BIA counted member interactions (see Figure 24). Understood as a central element of their work and mandate, this (ac)counting practice further transformed into a tellable story and used as promotional material, it served to secure their steward position.



Figure 24. Ambassador Engagement and Observations (2014-2018) (DVBIA, 2019)

Similarly, by counting parking enforcement, referrals and assistance, BIAs made the work of their staff more visible. More tellable and demonstrable, the work of images as well as *image work* distanced ambassadors from the concerns in front of the courts. This quantification and framing foregrounds some accounts and forms of work over others, and in doing so stabilizes roles and jurisdiction. These *actionable in/visibilities* devalue, making invisible, or leave out of the frame certain articulations (Metzger & Wiberg, 2018). Glucksberg (2014) extends this further by suggesting the devaluation of activities, areas and inhabitants are necessary precursors to “regeneration” and analogous projects.

As the “eyes and ears on the street” these practices of (ac)counting and securing extend the BIA gaze. Oligoptic, and focused on particular matters of concern, this ontological and epistemological position is orientated to making clean and safe doable. However, as stressed by the community safety manager, “doing” or cleaning wasn’t enough. Instead, to make their mandate more doable, the team also needed to count and catalogue it in various apps – make it knowable to others.

Our ambassadors, our clean team, if they’re picking up needles, they’re still going to put it into the [VanConnect] app and our app and say that they picked them up. Just so we have an idea of how big the situation is. There’s no point [our team] going around and cleaning it all up and having everyone thinks it’s hunky dory, when it’s not.

While these supplementary practices served to extend the BIA gaze sometimes beyond the matters of concern inscribed by the city, BIAs extended their gaze, in so far as extending it to others. “From oligoptica, sturdy but extremely narrow views of the (connected) whole are made possible—as long as connections hold” (Latour, 2005, p. 181). To stabilize their gaze or enable others to “see things from their perspective”, BIAs used data to share tellable and compelling stories. Initially, a means of demonstrating the ROI of clean teams for the BIA membership and stakeholders, data visualizations like Figure 25, also quantified the supplementary work done towards clean and safe.



Figure 25. Clean Team Activities 2017 (DVBIA, 2019)

As a secondary function, these supplementary statistics also served to hold the City to account – accountable not only for delivering service but also accountable for the current issues

faced in Vancouver.¹⁰² In this sense visibility motivated quantification (Espeland & Lom, 2015). As argued by Scott (1998), state intervention necessitated that targets be made visible. Detailed in the quotes above, BIAs justified these partial, supplemental programs and apps using discourses of visibility. Not only did they want to see things, they wanted things to be seen. What technologies render visible and how we are made visible to them – relations of visibility – emerges as *politics of visibility* (Crang & Graham, 2007). All BIA staff, when explaining their range of programs, stressed that they wanted to let the City know about the clean and safe issues on *their streets*. Specifically, one community safety manager illustrated the role of reporting,

Again, it comes down to the amount reporting. One of our businesses yesterday had a significant theft and they said they didn't want to report it since the city doesn't respond every time. It's trying to educate them that, "You're not going to get a response, yes it's really frustrating, but if you keep doing it, we're going to be able to build up a case." You've got to go out there, and do the groundwork, talk to people, guide them – what to do, why they need to, and what they'll see if they do.

Like numeric and visual evidence, the manager noted the hailing effect of reporting. Although the desired remedy was not always achieved, they stressed the need for persistence. To increase reporting and “let the City know”, many of the BIAs had created instruction cards for membership, explaining who to contact for public realm maintenance, property theft and violent crime. Between ambassadors, clean teams, and businesses, reporting and self-reporting was seen as part of making their mandate doable. The community safety manager went on to stress,

¹⁰² At the heart of the Canadian opioid crisis, Vancouver's harm reduction program has focused on public health by promoting safe injection sites and clean needle programs (amongst other programing). However, an unintended consequence of the latter program has resulted in the mass discarding of sharps into the public realm. Many BIAs in partnership with Coastal Health have taken it upon themselves to engage in sharps collection.

It's the follow-up as well. I don't know if you can see [on VanConnect], but when you look at the list of the reports that [the city is] working on, they're quite far behind. They're overwhelmed, they brought in the system and not everything is being focused on. I would love to know – not that you would never know an accurate figure or what's out there – but we know what's being reported. And if people actually start using it, then we're aware of it a bit more. That's why we report so much. We're encouraging people to use these apps or call it in, whatever it is.

They noted how multiple issues (e.g., austerity, backlogs, unanswered calls for service) both exacerbated frustration with the current system, as well as increased the dark figure of “crime” or “asset related issues”. Completely cognizant that no amount of surveillance or data capture would reveal the dark figure or enable their *fantasy of pure vision* (Crang & Graham, 2007), yet jokingly wanting to know it, they strongly supported reporting. Spatial or urban transparency becomes further entangled with the market logics of efficiency and fiscal transparency. Moreover, transparency aligns with forms of technocratic control (Kitchin, Lauriault & McArdle, 2018; Leszczynski, 2015). These practices reframe local government by entangling market logics with ways of knowing, more specifically instrumental rationalities (Callon, 1998; Mattern, 2013). In doing so, caring for the public good, appears to be care for property and consumer citizens, moreover, a care that is unquestioned (Gill, 2017).

Once again engaged in (but also enacted due to) a permanent critique of government or a *laggard governance frameworks* (Barns, 2012), BIA's accounting practices reaffirmed the crisis of government. In effect, overwhelming the already “overwhelmed” system was seen as making their mandate more doable. Despite overburdening the current system, it was argued that reporting gave the city a more comprehensive picture as rendered by the BIAs, but also helped them plan accordingly for further service delivery and infrastructure. To the BIAs, making their work, as well as the problems in the district visible, also made their perceived remedies more

compelling. One executive director, reflecting the sentiments of many BIA staff, succinctly explained the role of reporting,

A huge part of my work right now it is trying to educate people on why they should be reporting. Without reporting we don't see more police; we don't see a better budget allocation. I have some of that data, and that's my recommendation for next year.

To the executive director, confident with their oligoptic gaze, more policing would better enable them to address their clean and safe mandate. Like the VanConnect app, the doability of their clean and safe mandate was based in public services. Rather than holding the City to account, or engaging in double-entry bookkeeping, these supplementary and evidenced practices hailed particular responses prefigured by relations of visibility. One operations manager, when explaining roles and responsibility, unpacked this relation of visibility,

The Community Policing Centres (CPC) in our area are doing work similar to what our ambassadors are doing right now – picking up and identifying needles, identifying graffiti. Our ambassadors are doing that already. What we've been trying to do, make work with the CPC, is to say, "Hey, can we just handle the needles and the graffiti, and we'll send you the data. In exchange, that frees you up to go and talk to our members." [...] It's better coming from the CPC and VPD. We're still negotiating that. We're in a good position and we're asking them to come and do more patrols in our area. It's tough, but we know spending more time on the streets, helps us both. They're trying to allocate, but their resources are very tight.

In saying that, the operations manager drew together the argument detailed above: they noted an overlap in roles and responsibilities, were cognizant of their similar matters of concern, and used their data to broker resources. Worried about responsabilization or the *externalization* of costs, quantification and reporting have become core practices of clean and safe. To the community safety manager, executive director, and operations manager above, moreover most BIA staff, reporting – rather than being an end to a particular incidence – was a means of securing better budget allocation, allocation that was based on the accounts and accounting of premium spaces.

Mandate of clean and safe were made doable through these practices of self-help or self-serving; however, access or bypass was made possible through the valuation and articulation of supplementary work. These practices of securitization, not only secure or fortify spaces, but also secure the claims BIAs are able to make and their position or role in urban governance, claims, both in terms of accessing resources, but also in terms of making claims about the areas.

6.6.1 Aligning Accounts

To the city, the data sourced from BIAs, as well as from citizens, was critical not only for the success of VanConnect, as mentioned, but also for fueling the City dashboard. The City manager, sharing the enthusiasm for (big) data urbanism, was a strong proponent of the dashboard, moreover, what the numbers enabled. Beyond providing them with organizational oversight in the City's promotional video, the manager stated,

It's been a great way to update our SLAs [Service Level Agreements] because in many cases, people weren't on top of what their SLAs were, they might have been outdated, and this has gotten them to update them and to track them more as an organization. That's really helpful.

The dashboard served as a top down tool, bringing visually fragmented service delivery under the purview of the city. These calls for service "letting the city know" highlighted the functioning and performance of internal and contracted service delivery. During a demonstration of the dashboard, the City manager explained,

You can see the different call types, and the ones where we are meeting our Service Level Agreements are in green. All the problems in red, they're off track. You can see on the map where that is, what percent has been met, number of cases, and where the calls came in. That's a really nice snapshot of what the issue is. It really sets us up for what questions to ask of the department when we're calling about why it might be red. You can also click on the SLA and the KPI definition. Right here from my desk, from my office, I can get a sense of how we're defining what that Service Level Agreement is. It's high-level, but it's a great place to start with what questions to ask.

Remediated through the dashboard, VanConnect data became a “high-level” “snap shot” of city functioning. Benchmarks and KPIs, served as a particular and narrow account of city functioning and representation of city health. Furthermore, this way of knowing framed the types of questions that could be asked. As argued by Akrich (1992), “technical objects contain and produce a specific geography of responsibilities”, which are not necessarily deterministic, yet normalized new arrangements, orders and knowledge (p. 207).

While attempting to make the city less reactionary, the scripted process of (ac)counting – the service request process – reinforced the reactionary position of the city. This epistemology of the city not only changed approaches to issues, but also expectations of various stakeholders. Rather than a potentially opaque 311 call, where the onus was often placed on the business or BIA to follow up, the VanConnect app partially changed this dynamic. Conceptualized by the CTO as a visual channel, it made the City more answerable in “real time”. However, by being able to immediately file a service request, constituents seemed to have similar and now elevated expectations about response, as the director of digital platforms explained,

People expect the service to be fast and done before they get home that evening. When that doesn't happen, because there's a lot of other things going on, they don't see or understand that. The expectation of the citizen has increased by the fact that you've given them this channel, that's in their hands, that they can just like take a picture of an issue and send it to the city. They then expect the same level to service back, on the fulfillment piece, which is sometimes difficult to deliver on. That's part of the challenge with the business community, as well it is like right-sizing their service level agreements with the city abilities.

Constituents, able to get to account for issues in the city, participate in “immediate, clickable, fleeting, problem-focused and individualized form of civic engagement” (Baykurt, 2011, p.1). VanConnect accelerated expectations and demonstrated the current, or reasonable, limitations of the tool. More specifically these expectations may reflect “real-time representations of future technological situations and capabilities” (Borup, Brown, Konrad & Van Lente, 2006, p. 286).

These attempts to actualize the proximate future, demonstrate forms of anticipatory digital urbanism that is both positive yet pragmatic (Barns, 2012). Although partially outsourcing and automating, as well as claiming to “democratize” reporting, the city still had a finite and limited number of workers to respond to public realm issues. Budgets and allocations served to temper the “production and dissemination of technological fantasies” (Crang & Graham, 2007, p. 791). In this actually existing smart city, remedies and responses were not sentient or *automated and anticipatory* (Klauser & Söderström, 2016) and any illusion of such was broken down by the human based response for service. The director of digital platforms explained the City’s response to the increase in reporting and expectations,

We’ve had some challenges internally, in terms of changes with management. Certain departments saying they don’t want to take on another channel or additional workload. They’re like, “We’re already busy enough.” So, you get that kind of push back. We’re trying to change the conversation to say, “Listen, just because a resident tells you something, that a streetlight is out or there’s a dead animal on the road or whatever it is, doesn’t mean it takes priority over every single other piece of work that you have to do.” But it is work that is in our city, and we need to know about it in order to right-size our fleet, to right-size our staff, to right-size our budgets.”

Not only enabling particular forms of oversight and accountability, the reorganization of 311 resulted in the redirecting of service and potentially the re-prioritizing of service. Accounts, many from businesses and BIAs, consisted of translated dashboard data transformed into KPIs or SLAs – the delivery of which was imperative to demonstrating the ROI of VanConnect. Quickly transformed from counts and accounting into evidence-based data, this approach to city governance is posited to ensure rational, logical, and impartial decisions (Kitchin, 2014a). This sense of impartiality through data, gives City managers not only an empiric defense (Hague, 2012), but also an air of accountability. And while next steps are focused on increasing users and

functionality, the director of digital platforms noted the power of additional data and data combinations,

I think that's directly where the opportunity is. That it's taking the data that we're getting from VanConnect and combining with other data sets. We've started to do that on the dashboard side. We can use this in the decision-making process around where to allocate limited resources. That's the other kind of driver that's come out of it, the data that the app has generated. Our conversations are better, a bit more intelligent, using data to deliver a better service.

While partially tempering expectations of big data urbanism, the director invoked other data discourses, specifically the sense that “more data is better”. In agreement, to the City manager “more data” was seen as a better means of allocating resources and promoting evidence-based discussion. Arguably, effective resource allocation and evidence-based decision making are laudable aims. Many, including Kitchin, et al., (2015), have acknowledged that “indicators and dashboards have utility, providing information of value to City managers and citizens. Indicatives [which] provide valuable spatially extensive and time-series data about the state of play of cities.” (p. 29).

However, as demonstrated above, within these counting and accounting practices, data entry is neither neutral nor comprehensive. Determinations of the state of play, rather than essential or impartial require far more tracing. While Kitchin et al., (2015) broadly acknowledge the politics and contexts infused into data assemblages tracing some general actors – to better account for the data assemblage is to better count and account for how the data is assembled. With aspirations of promoting democracy and making the city accountable to all of its stakeholders, the co-option of VanConnect by BIAs demonstrates the role of private interest in diverting and directing governance. Like the BIA itself, data collection is already centred in premium spaces, which reinforce particular ways of seeing the city. These accounts directed both day to day service delivery, but also provided benchmarks for “right-sizing” the city. However,

rather than fix, democratically bundle, or lessen splintering, the collection of VanConnect data furthers bypass strategies.

6.7 Making Do: Advocating as Assets

Beyond ensuring SLAs and producing a track record of city performance, BIA staff explained how they used their data to improve conversations with the City. As stated by one executive director, “Our data lets me know what’s going on and better advocate for my area.” While data collection was key to city decisions, the BIAs also used their records to advocate for their areas.

We’ve done some advocacy work, to try and raise awareness for some on-going issues – the lack of garbage bins in an area, lighting issues, worn out crosswalks in need of repainting, traffic flow and areas that would benefit from pedestrian activate lights, [...] dumping spots, challenges with City property, that kind of stuff. We’re in touch with them a lot. Again, as with any partnership, we don’t always see eye to eye on everything, but they’ve been really helpful on the majority of things that we bring to their attention.

The various forms of data collection enabled BIAs to not only direct service delivery, but also to secure public realm planning and long-term improvement. Beyond advocating for service, these accounts not only demonstrated the quality of assets, but in some cases were also used to justify a greater quantity of resources and assets. For example, in recounting their counting and clean and safe practices, all BIA staff discussed garbage and garbage bins – “I’m constantly reporting garbage and garbage cans.” A point of exasperation, most offered anecdotes of repeated calls for service, complicated by a lack of bins and illegal dumping. While critical of broken windows policing and gentrification, one executive director explained how public realm issues were perpetuated by City perceptions.

We have more people that put litter on the ground down here. That means more resources and more attention should go towards that kind of thing. In reality, we’re getting the same amount as the rest of the city. That continued stigma is never going to go away, unless you dedicate the resources to it. It’s really frustrating for me. I’ve been trying to get a trash can on this block. There’s no trash can on this block

right outside here. In two years, nothing's happened. Then I see new trash cans in other parts of the city and that really bugs me. I go and I call people of the city that I know that do trash cans and I'm like, "WTF? What? How? I'm asking for one trash can and I see like a dozen new ones on this other street alone." I don't want to point fingers or anything but there is that stigma and there is that sense of "oh well, it's dirty already anyway, what can you do?", stuff like that. It's just continued excuses that come about. If we were to try to put a trash can out ourselves it's like, "did you get a permit for that?" It's hard, it gets so frustrating.

Despite engaging in reporting activities and advocacy, the executive director called attention to particular delivery and diverting practices. For the executive, it seemed the city was far more interested in improving other areas, areas that appeared more straightforward to fix. Similar to the BIAs, the City was also interested in doable problems. And as recounted in this case, problems were made more doable through the networking of actors and corporatized bypass structures. While BIAs are often in premium spaces, not all are, nor are all *premium networked spaces* equal. As explained by the City BIA program coordinator, there was a sense in the city that areas without BIAs would be at a "competitive disadvantage." BIAs are themselves assets and subject to valuation by a host of actors, including the City.

Just a couple blocks down the street, one operations manager told a very different story of garbage bins.

We're tracking quite a lot of information so that we can see if we are meeting our goals or figure out where we need to redirect resources. It really helps us figure out what attention the city needs. For example, it might help us determine whether or not additional garbage cans may need to be installed somewhere. On occasion we may ask certain questions like, "Hey, we got an extra 50 garbage cans. Where would you like best to put them?" So, we need to use our cleaning data with our pedestrian data to figure out where the best locations are. [...] We try to cover quite a lot of data on the idea that when we get asked, we can figure it out.

Based on this tale of two bins, or juxtaposition of anecdotes alone, it would be far too simple to suggest the City plays favourites or isn't concerned with "perceptions." However, elements of the accumulated advantage are seen in the privileging of the BIA data economy – BIAs with

larger budgets are often able to advocate for further resources. In this case, those able to allocate staff to populate the City dashboard, and representing key revenue generating areas, were often rewarded.

6.7.1 Concluding Accounts: Compelling Geographies of Responsibility

As the challenges facing our cities continue to evolve, our organizations are evolving too. While the basic tenets of “clean and safe” remain vital to what we do, place management organizations are taking on ever more complex roles and responsibilities, and many of us are having conversations about what the “version 2.0” of our profession might look like. Around the world, one particular strategy [discussed] for tackling bigger, broader issues is working collectively within a single jurisdiction (T. Tompkins, personal communication, June 28, 2018).

A travelling placemaking expert, Tompkins commented on the changing nature of BIAs. A common point of discussion in the trans-urban policy and frequent topic in IDA newsletter (as cited above), he reflected on the continued challenges and practices that made mandates doable. To make clean and safe doable, regardless of what iteration, requires aligning constituents, through various forms of work, which includes assetization, securitization, valuation, and articulation, etc. But what is doable is not necessarily stable. New challenges emerge, and what makes “clean and safe” *doable* changes. Like many of the issues mentioned at the outset of this chapter, each destabilizes yet justifies some iteration of clean and safe. This case, focused on the adoption of a City platform for accounting and securing, is one instance of the creative ways in which BIAs supplement and extend. While BIAs are counting, they remain counting on others. Not only do matters of concern, as delegated to technologies, script *geographies of responsibility* (Akrich, 1992), but BIAs, as technologies themselves, script geographies of responsibility.

At a surface level, needles have become a key matter of concern. However, in Vancouver, BIAs recognize that these larger challenges, specifically the opioid crisis, need far more than surface level remedies in order to make “clean and safe” as well as “safe and

inclusive” doable. As explained by one executive director, securing clean and safe would secure other things,

Sleeping in doorways, needles left in doorways, crime, these are all directly linked to the treatment options that people don’t have access to [...] If we can get more people into the hydromorphone clinics and treatment programs, it’s proven they cost taxpayers 50 per cent less in terms of policing, court costs, break-ins. (Rendell, 2017).

In 2017, and in broader conversations with BIAs across Canada, the Vancouver BIA Partnership issued a press release to the provincial government demanding the expansion of opioid treatment (see Figure 26).



For Release: September 28, 2017

Vancouver, BC

Vancouver BIAs Demand Expansion of Opioid Treatment Options

The Vancouver BIA Partnership represents 22 Business Improvement Areas, which together represent thousands of businesses and property owners in the City of Vancouver. Our members are on the front lines when it comes to property crime, cleanliness, and disorder on our commercial streets. Over the past several years, our province, and Vancouver, predominantly, have been overwhelmed by the deadly opioid crisis, now claiming over four deaths per day in BC.ⁱ During this period, however, the strain this has placed on Vancouver’s business operators and employees has largely gone unnoticed.

In addition to our city’s overstretched first responders, businesses are finding it increasingly difficult to deal with the effects of this provincial health crisis. Our business owners and frontline staff are finding overdose victims in their washrooms or on their doorsteps on a daily basis, and even more are dealing with the increasing disorder of rampant public urination, defecation, and the hazardous materials discarded on and around our commercial streets and laneways. As proud and active stewards of our communities, the 22 BIAs, in partnership with the City of Vancouver, are taking considerable measures to pick up discarded needles and educate our staff, customers, visitors, and families alike on proper safety procedures for dealing with overdoses, but these short-term solutions are still not enough.

There is growing consensus from healthcare based community partners, as well as the Federal Government that, for drug users who do not respond well to traditional treatments, injectable opioid assisted treatment reduces the use of illicit drugs, and thus, reduces the likelihood of death by overdose. These treatment optionsⁱⁱ are radically underfunded, yet have incredible potential to curb the overdose crisis, improve our addictions system of care, and save taxpayer money. The average patient at Crosstown Clinic costs \$27,000 per year, while that person would cost taxpayers an estimated \$45,000 a year in petty crime, policing and court costs, jail time and reactive health care costs.ⁱⁱⁱ

The Vancouver BIA Partnership supports an immediate expansion of opioid treatment options, including injectable therapy programs like those at the Crosstown Clinic. The Partnership has sent a letter to Premier John Horgan, Minister of Health, Adrian Dix, and Minister of Mental Health and Addiction, Judy Darcy demanding immediate action. Taking these measures will dramatically improve the health and long-term wellbeing of local drug users, making our world class city and the businesses that bolster our communities safer for everyone.

Figure 26. BIAs Demand Expansion of Opioid Treatment Options (Vancouver Partnership, 2017)

With this letter, the Vancouver Partnership translated matters of concern into matters of fact and matters of care. And while critical of the market logics that are imbued in this letter and related taxpayer comments above, many executive directors noted the positionality of BIAs and the partnership to better advocate. One executive director explained in a Globe and Mail article,

Because downtown small businesses are on the front line of the issue, they can be particularly effective advocates for the kind of systematic investment in housing and mental health needed to curb problematic drug use. They also can also speak to politicians in the language of money (Rendell, 2017).

Arguably BIAs are trying to make their mandates more doable in the face of this crisis. Like other bypass strategies employed by BIAs, in this case lobbying the provincial government in order to better anchor and achieve service delivery, BIAs are left to navigate the splintered streetscape, networking and often bundling together, at times, unlikely constituents. Far more inclusive than previous clean and safe practices, this version of safe and inclusive attempts to align the BIA constituency, with many often left out of the frame, or forcibly moved on. Their recognition of the larger constituency needed to make clean and safe doable, attempts to care for those in the area. Presented as a *matter of care*, altruistic and harm reducing, in effect these ontological politics deresponsibilized ourselves, the City, and businesses (along with many other) to be accountable or take more responsibility for the much larger matters of concern. In establishing matters of concern, questions of *what is to be done*, and *who is to do it*, are also entailed (Van Hulst & Yanow, 2016). Once again, it's hard to fault organizations for advocating for harm reduction, and using their business clout to make others listen, but what risks and unintended consequences arise from these vested market remedies? While a form of governance from below, BIAs and the partial tools, resources, and service delivery they provide, are not where we should be looking.

Chapter 7

Discussion: Streetscape Experimentations

The long-time BIA Coordinator for the City of Vancouver sat across from me in a small meeting room in the annex of Vancouver City Hall – we'd met many times throughout my dissertation research, from conference sessions to informal chats in very noisy coffee shops, and we agreed to meet again as I wrapped up my second case of field research. Reflecting on the changing Business Improvement Area (BIA) model over the past 30 years, they stated,

Initially, the BIAs were a bit of an experiment. Vancouver was one of the last jurisdictions in Canada to adopt them in the 90s. In Toronto, back in the late '60s, the motivation was to address the decline of inner-city areas in favor of suburban retail development. They were looking for a way to replicate the funding model of a mall.

How can you do that on the street? The light bulb idea was for the city to emulate this – every business would contribute to the fund and then the street would be in a similar position to get market share. The role of BIA management is to bring customer traffic through the virtual doors in the street, and to create that financial situation where a small contribution from an individual business generates a large fund that's significant to make a dent to the market share. That was an exciting idea at the time. [...]

With the first few in Vancouver, there was a lot more paternalistic regulation around them – a lot more City oversight. Transparency and accountability are still concerns – we haven't ditched those. After all it's a mandatory tax levy, and we need checks and balances to ensure that it doesn't become something oppressive, unwanted or doesn't provide value. A BIA is an investment like anything else. We had very fast growth curve for a while through the early 2000's, and the last BIAs were established in 2011. It got to the point where people were saying, "We got to get a BIA going in our area because we're going to be at a competitive disadvantage not to have one."

Their role has broadened considerably since the early ideas. Initially it was really about places with disinvestment, social issues, crime, stuff like that. The broken window syndrome, the broken downtown and the clean and safe agenda. [...] The pendulum has swung. We moved from trying to lift areas that were in dereliction and needed revitalization, to wondering how we can use the BIA model to help control investment and control business mix.

Really the role has broadened and changed considerably since the early ideas. One of the things the BIAs are finding is that, there's a range of services that BIAs [are able to] provide. Some of them are promotional and marketing and branding and all that kind of stuff, and then there's more like hard surfaces like graffiti removal, litter pickup, street power washing. Basically, supplementing and augmenting services that the city provides at some level but couldn't provide at a higher level out of the existing tax base. And again, there is the advocacy piece. [...]

Now, again, the challenges are new ones now. How do you control that? A BIA is a form of city building, because a successful commercial district or successful high street, is central to making a good sustainable, livable, workable city.

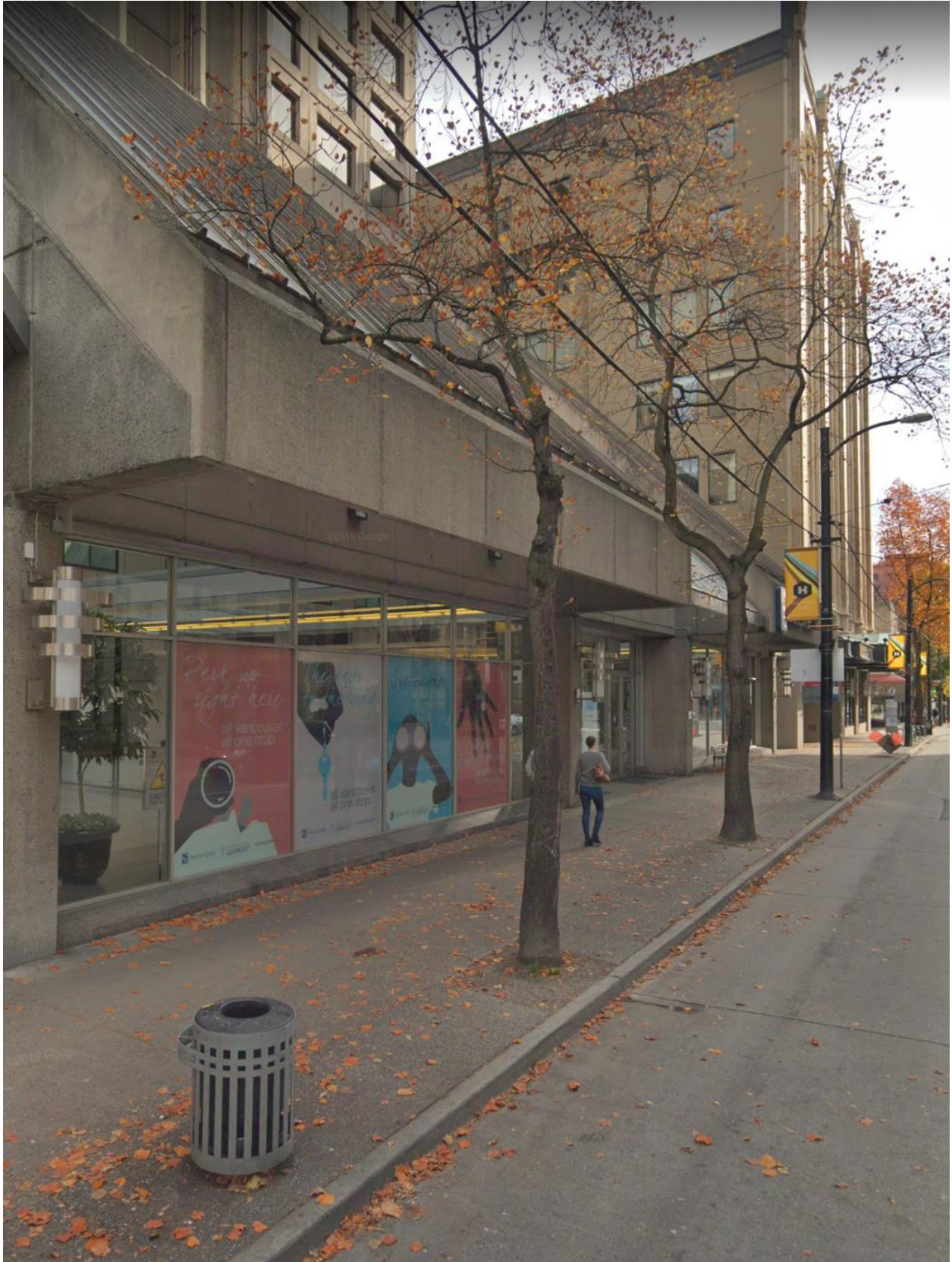


Figure 27. Vancouver Commute

I have passed some of these BIAs and bins on my daily commute for years and thought nothing of them. I will also be the first to admit, I did not think I would be spending days of my PhD fieldwork walking around watching someone count garbage bins or file accounts about them. As recounted in my Chapter 5 vignette, my enthusiasm for this activity was met with some confusion from BIA staff and even my colleagues. These activities are seemingly mundane, so why are they important?

BIAs, now expectations in many cities, cover our urban landscapes. Despite predating it, for some they represent the spread and scope of neoliberalism (e.g., Cook, 2009; Lapsley, et al, 2010; Ward, 2007). For others, they are seen as a mundane level of governance, associated with planting flowers, hanging banners, and organizing community events. And perhaps for many others, they are invisible or unacknowledged; their activities often attributed to other actors. However, these accounts from Toronto and Vancouver tell a very different story. Similar to discussions of BIAs and targeting of “little urban things” (see Lippert, 2014), by focusing on how accountability relations are enacted on the ground, it’s clear that BIAs are neither forces of privatization, nor trivial. While focused on seemingly mundane practices, this governance is anything but mundane.

In this chapter, by drawing connections between my research questions, literature and analysis, I reflect on these *mundane market devices* – both BIAs themselves and the technologies they adopt. The coordinator’s compelling story of “experimentation to expectation” is used as heuristic and recursive device. Given the prevalence of tellable stories about value, doable mandates and enduring relationships these themes cut across the respective sub-sections on: valuation, mundane governance, splintering streetscapes, and aspirational assemblages. While I highlight key distinctions between the accounts from the two cities (especially in the first more

summative section), throughout they are put in dialogue and their (in)congruencies made points of discussion.

7.1 “A Valuable Investment”: From Experiment to Expectation

Offering another window into the material above, the coordinator gave a compelling account of BIAs and the changing landscapes they have aligned and adapted. No longer an experiment in Toronto, as policy circulating on a global scale and settling in Vancouver (and many other locations) – BIAs became an expectation, and as such were expected to solve the crisis of urban governance with private market logics and practices. From a dereliction and revitalization model, BIAs have become a standard for city building – an additional layer of governance. To the Vancouver coordinator, BIAs are focused on economic development and like any investment are concerned with creating and maintaining value. Though steeped in an ethos of private market solutionism, BIAs are not the solution. Instead as market devices (Callon et al., 2007), BIAs are tasked with making mandates more doable; making governance seem more doable. In the business of valuation and doable problems – things that can be measured, benchmarked and achieved – BIAs pool investments, share resources, adopt technologies and align constituencies towards their common goals and stories. In order to make their range of programs doable – from “clean and safe” to “advocacy” – BIAs have adopted another market(ed) solutionism, smart urban technologies.

In Toronto, an asset management technology has been adopted by three large BIAs in the downtown core to address “concerns of blight” through beautification mandates. For the BIAs, beautification mandates, beyond the baseline of clean and safe were focused on raising the standard of public assets to those in the private realm. Predicated on a process of assetization, the application further automated valuation practices – counting and accounting – as well as the

performance of accountability relations. Still concerned with free-rider problems and wanting to make local governments accountable to taxpayers (more specifically BIA's constituents), GeoPal was seen as a custom, convenient, temporary, partial and experimental device to make mandates doable by navigating loopholes in service delivery. When armed with the lifelog of assetized blogjects, (ac)counting with the app enabled BIAs to serve themselves, using STP to direct city services to their areas. The app and data – and the surrounding tellable and compelling stories they told – not only made mandates doable, but these forms of valuation, mundane governance, enabled the BIAs to determine and police what and who belongs. While both the app's sales team and its BIA users have great aspirations as demonstrated with tellable and compelling stories, the stability of this relationship (as well as the CRM application more generally) is potentially very temporary (in contrast to VanConnect). In part this is a deliberate strategy: the app developers and BIA managers can see that other, more encompassing everywhere approaches (Greenfield, 2006; Kitchin & Dodge, 2011) are coming and wish to deploy relatively cheap and flexible implementations that are focused on specific targets (Murakami Wood & Mackinnon, 2019).

In Vancouver, BIAs have incorporated a citizen engagement app to secure their areas and carry out “clean and safe mandates.” While most engage in beautification projects, there is far more concern with the more basic, or baseline practices of managing or securing value. A goal partially shared by the City, BIAs have become a key user group of VanConnect, making use of its automated public realm maintenance reporting features. Being neither the owners nor operators of the app, BIAs are unable to use the platform for assetization, as in the Toronto case.¹⁰³ Instead, ambassadors, security guards, and clean teams have incorporated the app

¹⁰³ Arguably, choosing what they report out of the upwards of 130 options on the app is a form of assetization.

alongside other assetization, securitization and valuation practices in order to address BIAs' matters of concern. While engaging in similar valuation practices – counting/recording and accounting/reporting – with VanConnect and supplementary apps, BIAs in Vancouver promote relations of visibility. BIAs demonstrate the value of their practices and organization by making their work, problems and remedies more visible to the City. Knowledge and data about the city not only secures clean and safe passage for some, but also secures the delivery of clean and safe services. As daily active users, Vancouver BIAs are better able to direct and potentially divert City services. Based in relations of visibility, by offering the City additional data, BIAs are better positioned to make knowledge claims and advocate for their areas. While a limited app for Vancouver BIAs, as it requires the alignment of various constituents and supplementary practices outside of the app to make clean and safe mandates doable, VanConnect seems like it is here to stay, so long as the City is able to get more downloads and continue to demonstrate ROI. Through their use of the app (and other supplementary activities), BIAs reaffirm their utility to the City and their integral role in the app's success.

Despite these slight differences (e.g., matters of concern, cities, BIAs and applications, etc.,) the role of governance and accountability was central to both cases. BIAs and municipalities – attempting to stay relevant and maintain their existence amidst ever more potentially privatizing structures – have been made (and are finding new ways) to make do. With mandates focused on creating and maintaining value, valuation practices were positioned as ways of making mandates doable – that is, more governable.

7.2 Mundane Governance: Making *Do* and Making Durable

Approached from a more traditional politics of organization, structures and human compliance, valuation practices are tools for identifying concerns and determining whose task it is to fix

them. In both Toronto and Vancouver, the BIAs were trying to hold the City accountable for service delivery by using these technologies. However, the technologies and data are used in different ways and for different purposes. To some extent, who owns (or is able to control) the features of the applications, partially determines their use, utility and purpose. However, the Vancouver case troubles such technological determinism, since through adoption and adaptation (e.g., supplementary accounting), Vancouver BIAs were able to automate, outsource and contract service delivery. Between their use of VanConnect and supplementary accounting, the Vancouver BIAs promoted relations of visibility, which closely resembled relations of accountability. Once again, the distinction here is between making things visible and instituting accountable ways of dealing with them. Due to the different matters of concern between the City of Vancouver and the Vancouver BIAs – the City accountability tool did not necessarily promote the organizational accountability that the BIAs were looking for. Instead (ac)counting and reporting served to increase the BIA’s visibility, which to some extent resulted in comparable forms of organizational and mutual accountability.

Yet, this understanding is still rather innocuous, perhaps at best calling attention to the *real* free-rider today. In order to examine accountability on the ground, I traced how BIAs created and managed value through counting and accounting on platforms, apps and other ordering devices – and by extension, how materials, places and people are seen, counted and accounted, ordered or governed. “What counts? ... What is valuable, and by what measures?” have long been ubiquitous to everyday practice (Stark, 2009, p.9). For instance, numbers and accounting, are central components of the modern state (Foucault, 2007, 2008; Hacking, 1986), as well as to more speculative models of city governance (Lapsley, et al., 2010). Numbers, data and statistics render governments and their constituency visible, knowable, governable and

accountable and responsible (Foucault, 2007, 2008; Lapsley, et al., 2010). These technologies of calculation, coordination and ordering enable BIAs to better know or rather render their areas in terms of assets and threats, thereby furthering particular forms ontological politics. How BIAs engage in (ac)counting and accountability is firmly demonstrated by the objects, places and people, who are held to account. By promoting certain accounts over others and determining what, where and who counts or is seen, BIAs have used these technologies to further their visions of the area and cast understandings of improvements accordingly. In the short term, they provide a means of benchmarking BIA practices, and establishing broader accountability and visibility relations across agencies. Beyond this, these valuation practices stabilize their status as the great convener, and further their authority over the urban and the future decisions that secure and shape it.

What is made visible and what is counted, as I have argued above, is prefigured, configured and performed through assetization and securitization.¹⁰⁴ In other words, to create and manage value, is also to assetize and securitize value. While each case study foregrounds one of these practices as prefiguring valuation, both demonstrate the ways in which they are co-constructed and co-configured, meaning that they are not separate processes, but were coordinated around certain affordances and constraints. For example, in Vancouver, rather than directly assetize materials, such as bins and banners, by using apps and data they made compelling stories about organizations, areas and work as assets.¹⁰⁵ Clean and safe knowledges

¹⁰⁴ BIAs and their practices as market devices (or messy hybrids) perform various features of “the market”. There are interesting parallels to be made to other definitions of securitization, specifically the financial practice of pooling illiquid assets and contractual debt. This is especially so in an economic sense, as processes of assetization and securitization go hand in hand with valuation. For example, BIAs are using a city C2M app for logging service requests consolidating refuse, which become a measure of ROI for the City. Furthermore, BIAs themselves unlikely assemblages of assets (sometimes illiquid in the case of areas in need of revitalization) through shared levies could also be thought of as securities in this sense as well.

¹⁰⁵ Once again, not a distinction as both BIAs did this. I am simply foregrounding practices in relation to how BIAs focused on matters of concern and matters of fact.

and practices, as inscribed in and governed through VanConnect and other apps, became ways of protecting these assets. The Toronto BIAs in comparison, used GeoPal to count and account for their “organizational assets”, and while they did not necessarily own them, these practices enabled them to claim stewardship over them. The BIAs by claiming stewardship, or partial authority, bound up their own identities in the qualities of these assets, which came to reflect, but more so to govern the qualities of the area. Through (ac)counting practices and the assetization of materials, places and people, BIAs secured and increased the impact of their brandscapes and securityscapes.

7.1.2 “Is that Surveillance?”: A Case for Mundane Surveillance

While surveillance was occasionally mentioned, participants predominately used terms like “data driven” or “monitoring” to describe what others might see as *everyday surveillance* practices (Aas, Gundhus, & Lomell, 2008; Lyon, 2002; Staples, 2013). For BIA staff, city officials, and even app representatives, “monitoring” and “reporting” made far more sense than “surveillance”. During an interview, at a point in the discussion where I had used the term “surveillance”, one executive director dwelled on my conceptualization of their asset management program. To summarize, for them, surveillance evoked a much grander “extraordinary” practice that involved various forms of suspicion. While self-identifying as “the eyes and ears on the street”, they conceptualized their practices as “practical”, “mundane”, “necessary”, or “oversight”. As noted above, most staff engaged in data-collection made enthusiastic statements like, “I’m an urban accountant”, “we monitor and report”, or “I’m a complete data geek”.

Surveillance in the public imaginary has been sensationalized with frequent revelations of mass state surveillance, data breaches, and the growing mutating forms of surveillance capitalism. On the one hand, these high-profile events draw attention to the legality and impacts

of surveillance, yet at the same time this ratcheting effect makes more mundane, normalised forms of surveillance seem trivial, or “not surveillance at all”. The rise of invisible information infrastructures transforms bodies into information (Clough, 2004), further detached from their contexts and traditional social relations and networks (Lyon, 2002; 2006b). The vanishing and ubiquitous features of surveillance further its unquestioned prominence in everyday life (Murakami Wood, 2015). Furthermore, in the age of information or infoglut, surveillance capitalism advances this vanishing process. Compounded by the intersections of privilege, visibility and transparency, surveillance and social sorting may further marginalize or disadvantage populations (Bennett, Haggerty, Lyon & Steeves, 2014; Lyon, 2002, 2003). In doing so, the expansive range of what constitutes surveillance complicates differentiating forms of “the systematic collection, classification and sorting of information about subject populations for the purposes of behavioural adjustment or control” (Murakami Wood, 2009).

There is a tension between wanting to be accountable to the discourses and conceptual repertoires used by the actors that I followed, and not wanting to reinforce what is considered mundane or banal. For example, by juxtaposing the similar treatment of humans and nonhumans by some BIA (ac)counting practices, I aim to disrupt the latter. The treatment of people as objects, as well as, the delegation of policing or governing to objects might be an everyday practice; nevertheless, is anything but mundane. However, as Woolgar and Neyland (2013) note “the mundane is at once mundane and also profound” (p. 260). While recognizing the variety, severity and connections between forms of surveillance, the study of everyday surveillance, but more so, mundane surveillance, remains important.¹⁰⁶ Seemingly mundane practices of oversight,

¹⁰⁶ While Lyon (2002) and others studying “everyday surveillance” note that the “outcomes of this process, however, are not inconsequential as far as social order and social control are concerned” (p. 243), I’ve used mundane here to signify not only the nonhuman actors, but also further place the notion of “everyday for who or what?”

monitoring, and counting, lead to categorization (Arendt, 2006; Bowker & Star, 1999), classification (Hacking, 1986), mundane terror (Neyland, 2009; Woolgar & Neyland 2009), social sorting (Lyon, 2007) and biopower (Foucault, 1977, 2007, 2008). *The mundane comes to matter.*

7.2.2 Making Durable: Maintaining and Securing Value

Through assembling and aligning constituents in order to materialize (Aradau, 2010) a semblance of (in)security, and practices of securitization, like assetization, they are bound up in the alignment of value and valuation. Performed and called upon in some instances over others, valuation practices further securitization practices. To value something usually means to secure it. Many forms of social control and order are predicated on the protection of wealth and value. For instance, Marxian criminologists have long argued that policing serves to protect private property, relations of ruling, accumulation and consumption, furthermore, that the semblance of in/security legitimatizes urban pacification (Neocleous, 2002; Rigakos, 2002, 2011). While these practices of fortification, governance and exclusion are *real* in their impacts, the ontology work that underpins them, as contended by Neocleous and Rigakos (2011), is an *illusion*. Perhaps the declaration, “security is an illusion that has forgotten it is an illusion” (Neocleous & Rigakos, 2011, p. 15), not only addresses the instability and contingency of its performance, but also its dangerous power when its ontological status is achieved.

Influenced by Aradau (2010), Giddens (1991) and Mol (1999, 2002), beyond fortifying spaces, places and things, I argue that securitization in relation to these valuation practices performs a form of object-orientated ontological security.¹⁰⁷ As illustrated in both Chapters 5 and

¹⁰⁷ Woolgar and Neyland (2013) use the term ontological (in)security, and to some extent I prefer their term as it demonstrates the uncertainty, instability or illusion of “security”. Furthermore, some of their comments about “mundane terror” are very pertinent in these contexts as garbage bins and other features of the urban landscape are

6, ontological attributes were constituted, assigned and distributed to assets through these market valuation devices. Specifically, through assetization, securitization, and valuation the lifelogs of blogjects came to stabilize stories of what these objects are, their value, and threats to them. Threats to assets¹⁰⁸ and their ontological security, determined through qualities of value, were met with further securitization and accounting in order to raise their value. In other words, these processes of securing a singular ontological status sought to make relations between assets durable.

Technologies *and entities*, as Woolgar and Neyland (2013) argue, are politics by other means.¹⁰⁹ BIAs and the apps they use for (ac)counting, assign ontological attributes, which are political, moral and dangerous. These devices, by determining, assigning, and circulating ontological attributes of assets, transform matters of concern into matters of fact, as well as matters of care. Delegated to apps, these banal practices or mundane tasks (e.g., accounting, cleaning, maintenance, etc.) inscribe value(s) into the objects. Similar to *brandscales of control* (Murakami Wood & Ball, 2013) or *policing by branding* (Bookman & Woolford, 2013), the qualities of assets come to shape the area. However, more than denoting the qualities of the area – the cleanliness of the sidewalk, lampposts free of graffiti, and empty bins *act*. In other words, nonhuman actors come to police and *enforce clean and safe* practices, which reconfigure people.

As Woolgar and Neyland (2013) argue “objects and technologies are accountability made durable” (p. 46) and so what does this say about accountability? Qualities of the space, and the

cast as under threat. Potentially the topic for another paper, in both Toronto and London fieldwork, some operation managers, security personnel and others noted that bins had been removed due to fears of terrorism. However, here, I seek to distance my discussion here from notions that conjure terror.

¹⁰⁸ Assets not limited to materials, places and people, but also include BIAs as organizations and their work. Furthermore, their problems or matters of concern to some extent can also be thought of as assets, as BIA partial fixes further justify their existence.

¹⁰⁹ Woolgar and Neyland were by no means the first to argue this, similar to many neo Foucauldian (see Rose, 2001), they are simply trying to reclaim the “technical” with this proposition.

practical condition of mundane objects, implicate governance and accountability. In other words, (ac)counting and the resulting maintenance – presented as traditional accountability, *do* far more. In order to secure clean and safe passage, BIAs and apps facilitate the policing and *displacement* of objects, places and people – a practice of placemaking but also *world making* (Gill, 2017; Puig de la Bellacasa, 2017). But who is this world for? As illustrated in both Toronto and Vancouver, valuation practices further ontological or otherwise, revanchist politics. Instead of accounting for the human beings, who are nevertheless affected by the business and the BIA practices, through counting and ontological politics, BIAs determine who belongs and; moreover, who is accountable. Rather than serving all users and uses of the spaces, *accountability is* concerned with the ontological and physical security over assets, and (in)directly governing what BIAs considers to be the proper conduct of public and private agencies.

On some level I can appreciate the logics behind counting people, as Scott (1998) argues targets must be visible to justify state intervention; however visible to what end? In both Vancouver and Toronto, while some attempts of safe and inclusive were made, in all cases BIAs were ultimately concerned with their constituents, and accountability in relation to them. People experiencing homelessness or other street related concerns were countable and counted, but homelessness (or the factors in that area which may contribute to it) were not. Even though these are contributing factors that could be counted – they were not the *matter of concern* or *care*,¹¹⁰ as addressing them was not doable or even within the scope of the BIA mandate. As Harvey (1989) notes, partnerships focused on economic development and the speculative construction of place, are often in positions beyond their choosing and unable to ameliorate them. While this might be the case, by explicating the mundane and profound potential of these devices, we can challenge

¹¹⁰ See counter point in section 6.71 regarded matters of care and the Vancouver Partnership.

the ontological politics and on the ground practices. Governance and accountability on the ground needs to be far more accountable to all who are there.

7.3 Splintered Streetscapes: What is Premium?

Considered “the government of our times”, BIAs have delegated aspects of their mandates to apps and entities in the built environment. Rather than responsabilization, through delegation BIAs have assembled a range of constituents (e.g., public, private, human and nonhuman) centred on maintaining and creating value within their areas. Specifically, better enabled by app-based practices (among others), they have found innovate means, loopholes, and technologies for navigating the *splintering streetscape* and carrying out their mandates.

This splintered streetscape, as argued by Graham and Marvin (2001), is one that BIAs have had a causal hand in establishing and maintaining. Related to the movement away from managerial approaches, BIAs were initially a “solution” to address the urban crisis. And through the unbundling of infrastructure, creation of by-pass routes and re-bundling BIAs have become a compelling model for creating and maintain premium networked spaces (Graham & Marvin, 2001; Harvey, 1989; Ward, 2003). However, now an expectation, the proliferation of BIAs in urban centres calls into question what is premium. In both cities, Toronto perhaps more so, the studied BIAs are implicated in international networks, carry out local and global bypass strategies, and take various steps to “raise the standard” of their premium space and brands. In Vancouver, as demonstrated by juxtaposing the two bin anecdotes arguably not all “premium spaces” are equal. Not wholly isomorphic and exacerbating splintering, BIAs are also located on and have to navigate these uneven geographies. To varying degrees, BIAs are often the ones left to re-bundle the remaining and left-over pieces of infrastructure and public services.

7.3.1 Administrative Fragmentation: Diverting, Directing, Districting

As demonstrated in the two case studies, apps have helped BIAs assemble and align constituents in order to complete beautification and clean and safe mandates. At a practical level as explained by the Vancouver director of digital platforms “you want to know who to call when there are needles on the ground”. Rather than provide what Amin and Thrift (1994) have called *institutional thickness*, I contend BIAs and these related apps have created or contributed to a fragmentation of urban governance. These apps have enabled practices of directing, diverting and districting, by enabling BIAs to better navigate their splintered streetscapes, which has incentivized the vicious cycle of splintering, and more specifically administrative fragmentation.¹¹¹ While BIAs capitalize on elements of thickness (e.g., maintaining institutional presence, fostering high levels of interactions, a clear purposeful mandate, and a mutual awareness of a common goal), their practices concentrate in particular nodes and areas. In both cities, instead of engaging in self-help, these smart technologies have enabled BIAs to help themselves: diverting resources, directing city futures, and enforcing districting practices – albeit partially. Though appearing to facilitate institutional thickness by aligning actors towards a common corporate goal, the thickness that is produced through these self-serving practices is uneven – targeting some assets over others and resulting in uneven delivery. Through (ac)counting BIAs hail accountability and visibility relations; however, some premium spaces are better *positioned* for diversion.

¹¹¹ Fragmentation is defined by B nit- Gbaffou (2007) as the “de-solidarization of the city (no longer functioning as a system but more and more as uncoordinated “fragments” drifting apart” (p.1934). B nit-Gbaffou (2007) notes various forms of fragmentation including spatial, economic, political and social. While governance cuts across these three categories, administrative fragmentation not only illustrates the practices and issues, but revives and challenges some distinctions between managerialism and entrepreneurialism.

For example, in the case of Toronto, the BIAs that have adopted GeoPal are some of the wealthiest areas in the city, all with \$2.5M to \$3.5M annual budgets (maintenance and beautification accounts for approximately 15%-25% of this). In comparison, budgets of Vancouver BIAs were far more diverse, with only one having a budget comparable to Toronto \$3.4M; however, this was an outlier as most were in the range of \$0.2 to \$0.9M. Although the adoption of VanConnect required no capital outlay for the technology, it still required staff and resources to adopt it or build it into existing program. As noted by the City staff and most of the executive directors (regardless of their BIAs), those with more person-power and resources were better able to fuel the app and made more use of it. Already engaging in helping themselves through securing public funds, these maintenance requests furthered this institutional practice by upstreaming responsibilities. Despite having subsidized clean teams and beautification projects, through defining their own roles and rolodex, the BIAs solidified the City responsibilities for basic maintenance. As firmly stated by all City officials, maintenance is the responsibility of the City. And though it remains officially responsible for how service is deployed, the examples discussed in both chapters reveal that in some cases, where and why services get delivered is more partial than impartial.

Through valuation practices, BIAs attempted to secure areas, at an ontological level. Data, visuals, and other narratives, shared amongst membership, stakeholders, officials and the public further stabilized these knowledge and ontological claims. Through their work, BIAs engaged in a “politics of seeing and being seen” (Koskela, 2003, p. 295). Seen as matters of fact, these visual hailing devices directed attention to BIAs matters of concern and enabled the directing of future resources. Constructed as the most capable stewards, and possessing “the data”, in both Vancouver and Toronto, these tellable stories were used to advocate for greater

services and assets to their area. Not a universal BIA-City experience (as detailed in Chapter 6), the recognition by some BIAs, that “now the City comes to us” exemplifies their directing power. “More premium” here is understood in terms of a BIAs ability to maintain levels of ontological security, which was furthered through these economic and spatial practices of fragmentation. Cognizant of the zero sum inter-urban competition, by stabilizing fashion and hype as “innovation”, this image work serves to further resources and service delivery (Harvey, 1989).

BIAs – already a product of districting in themselves – these apps (and other activities) performed and furthered spatial fragmentation. For example, in Toronto the BIAs not only attempted to onboard surrounding areas by giving demos of GeoPal and sharing compelling stories, but they are also in the process of developing joint reporting. They contended that standardization and larger data sets would give them a more powerful voice in the city and further increase efficient service delivery. This exercising of re-districting clearly signals the aims of their scope and aspirational power – attempts at securing their role in governance. In Vancouver, the app also performs re-districting, however, this is complicated by the “ownership” of the app. VanConnect by bringing issues “back” under the purview of the city – back in the sense compiled through the city dashboard – partially re-districts the City as key consolidated users, directing the delivery of services. These directing practices of BIAs further spatial boundaries between areas of the city (e.g., between commercial areas, as well as between more residential and industrial areas).

Through these accounting and visual practices, BIAs have carved a new role in the management of the public and private realm, as well as the liminal spaces between them – the particular fragmented and supposedly broken municipal services. These practices of diverting,

directing, and districting, are nothing new, as these are the same practices that initially established BIAs and premium spaces. The adoption of smart technologies by BIAs is another isomorphic practice, extending their ontological politics and security. BIAs have positioned themselves as another layer of governance by claiming to be an invaluable accountability mechanism for navigating and innovating in the city. Perhaps initially a neighbourhood grassroots “invention”, once commodified as “innovation” and circulated through trans-urban policy pipelines, it was quickly enveloped, and onboarded into a capitalist market-based system – or perhaps it always was (cf., Florida, Adler, & Mellander, 2017). As Harvey (1989) notes,

While it is possible, therefore, to characterize certain kinds of urban entrepreneurialism as purely capitalist in both method, intent and result, it is also useful to recognize that many of the problems of collective corporate action originate not with the fact of some kind of civic boosterism, or even by virtue of who, in particular, dominates the urban class alliances that form what projects they devise. For it is the generality of inter-urban competition within an overall framework of uneven capitalist geographical development which seems so to constrain the option that ‘bad’ projects drive out ‘good projects’ and well-intended and benevolent coalitions of class forces find themselves obliged to be “realistic” and “pragmatic” to a degree which has them playing to the rules of capitalist accumulation rather than to the goals of meeting local needs or maximizing social welfare (p.16).

Able to profit from administrative fragmentation, the success of these BIA and their continued splintering practices highlights perverse incentivization. Presented as making the crisis of urban governance more doable, these solutions further problems of fragmentation. But as also noted by Harvey (1989), in addition to the negative impacts of entrepreneurial urbanism there is alterity; and the potential for a progressive urban corporativism to build alliances and mitigate capitalist accumulation (Harvey, 1989).

7.4 “A Form of City Building”: From Expectation Back to Experimentation

The use of applications and platforms for management of cities highlights intersections of particular modes of governance, accountability and accumulation. As stated by the Vancouver BIA program director in the opening vignette to this chapter, BIAs have become a form of city building. *But what type of city is being built?* BIAs, as a first generation of urban entrepreneurialism (or precursor to), are not cutting edge. Marked by the PPP model of local boosterism, these placemaking ventures externalize costs and risks to the public and governments (Harvey, 1989). These tales of innovation, like other instances of entrepreneurialism attempt to stabilize the city as an “exciting, creative, and safe place to visit, play and consume in” (Harvey, 1989, p. 9). However, as detailed in Chapters 5 and 6, the issues, challenges, roles and purpose of BIAs have changed. Not a static or scripted policy, BIAs are constantly in the process of being made and re-made, (re)conceptualizing and (re)articulating matters of concern as they emerge (McCann & Ward, 2011; Ward, 2011). While often thought of as a separate layer of privatized governance, as myself and others note, BIAs are unlikely assemblages engaging in numerous practices of constituting and aligning. With limited and increasingly narrow ways to create and maintain value, innovation has taken multiple forms.

BIAs normatively conceptualized as in competition with their surrounding areas are increasing partnering. This evinced by the three Toronto BIAs with aspirational aims to standardize their data collection, or local BIA coalitions, however, there are many more examples of municipal, regional, and international discourse communities. One executive director reflecting on the Vancouver Partnership, BIABC and IDA stated,

I think the BIAs have evolved so much. From putting up banners and fun festivals once a year, something like that, to this place where we actually represent a huge number of businesses and properties in our cities. That's why we formed this partnership. We were all having common issues. At the same time, we also have our own BIA differences, but when it comes to things public taxes and crime and safety, and social issues, and street disorder, we're all facing them.[...] Now, when you've got 22 BIA that represent more than 20,000 businesses in the city, that's more impactful. We really realize that and that's why we've come together in this partnership to really have strategic ways and advocating and what are the issues we need to be advocating for. Sometimes those change, depending on what's happening. There have been other things in the past too. I think it's been a really positive thing. While each of us is still here to advocate our own BIAs and bring people, and promote the economic development of our neighborhood, we are in essence a competition for people and money. We've also realized there's benefit to working together too.

Local coalitions, which often networked in these policy assemblages have little choice but to continue to participate and try and stay ahead by leap-frogging innovations and altering their forms in order to remain (Harvey, 1989; Peck, 2014). These “transformations into progressive urban corporatism, armed with a keen geographic sense of how to build alliances and linkages across space” partially attempt to “mitigate” forms of capitalism; however not in the way Harvey (1989) may have intended (p. 16).

However, with entrepreneurialism urbanism 2.0 – for instance, private smart city building – on the horizon (McCann, 2017), perhaps these innovative tales signal an attempt in delaying these new models. Similar to innovations in partnering, BIAs adoption of various technologies suggests some attempts at holding power, or at least the ability to count and account for the public and private realm. By making themselves sites of test bed urbanism (Halpern et al., 2013) BIAs have been able to craft tellable stories of their success. With the promise of efficient and effective service delivery data from these (ac)counting projects makes the work of BIAs visible, and helps them gather and align a constituency. These crafted stories of innovation circulate not only within the city, but also through trans-urban pipelines, becoming policies and practices for

others to adopt. While the circulation of these compelling stories may further stabilize the entrepreneurial BIA, when placed in these pipelines, these policies morph and mutate along the way (Cook & Ward, 2012; Peck & Theodore, 2010). Through this process, tellable stories of innovation become more compelling and a BIA's innovator status is solidified through competitive awards and grants. Yet, Harvey (1989) suggests, that when implemented elsewhere, competitive advantage is often fleeting. However, this innovation (rendered through analogues practices of valuation and assetization) attempts to retain or create value, and in doing so legitimizes premium or expert status, as well as ontological determination and security.

While shrouding their tellable stories in (big) data urbanism, as argued above and elsewhere (see Murakami Wood & Mackinnon, 2019) these platforms and applications are partial. These partial applications, are just that, partial in what they care about; partial in what they do; partial in what they see; partial in what is counted; partial in their location, etc. By no means suggesting a realist epistemology or that full visibility is possible, I contend that this precursory technology, while different from the hype of larger smart city operating systems, nonetheless provides some insights into how we come to see, know and thereby stabilize stories in the multiple city. An instance of the actually existing smart city (Shelton et al., 2015) or the ordinary smart city (Farías & Widmer, 2017), these data collection practices, similar to many we- and e-governance or consumer platforms, run counter to and yet reinforce data-driven, real-time logics. As cautioned in both case studies, in the making of these tellable and compelling stories about their city, accounts are rendered impartial and somehow additive. These precursory technologies are oligoptic in nature.

Networks of control that snake their way through cities are necessarily oligoptic, not panoptic: they do not fit together. They will produce various spaces and times, but they cannot fill out the whole space of the city – in part because they cannot reach every where, in part because they cannot know all spaces and times, and in part because new spaces and times remain to be invented (Amin & Thrift, 2002, p. 128)

With this recognition of networks as incomplete, messy and sparse, their panoptic potential for control is greatly limited. As Murakami Wood and Ball (2013) note, this visibility and knowing is “fractured, contested control, in which the multiple apparatuses of tight, limited and specialized control, compete, co-constructing not some uniform new subjectivity and space, but multiple subjectivities and spaces” (pp. 60-61). These oligoptic technologies, many of which are seemingly mundane and increasingly ubiquitous and automated, are frames, which are “value performative” (Metzger & Wiberg, 2018). Therefore, as “entrepreneurialism urbanism 1.0” or “2.0” continues to be reassembled, more detailed accounts of data assemblages, valuation, and practices of mundane surveillance are important for understanding the *ordinary smart*, oligoptic and *urban now* (Farías & Wider 2017; Robinson, 2013).

Chapter 8

Conclusion: “Replicate and Duplicate”

In June 2018, I found myself in the Chamber of Commerce and Industry of Berlin for the IDA World Town Leadership Summit. Once past security, where I presented my passport and conference paperwork, I walked through an expansive atrium into the conference area. Surrounded by a global group of placemaking experts, members of government, and corporate entrepreneurial sales staff – there to discuss the role of BIAs in the smart city movement – I glanced around the room looking for (and found) some familiar faces. Eventually, I took a seat at one of the many large catered tables in the room and introduced myself to other attendees. Those adjacent to me shared more about their own work in relation to my project as we tried make sense of the interpretation devices in front of us. After the IDA president and German host detailed the day’s programming, the event began with *compelling* national perspectives from England, Scotland, South Africa, Canada, Sweden, Japan, United States, and Germany. Executive directors offered updates on the mobility and mutation of the BIA model, their own matters of concern, and the work of their organization and regions. These tellable stories shared common themes of civic leadership, collaboration across levels of government, limited resources, and the strong need for place-making. In an era of austerity, many framed their work in terms of common statements such as “doing more with less”, “doing things that should be provided by the City” and “advocating for members.” During these presentations, while delayed due to translation, heads around the conference room nodded in agreement.

After this panel, designers, futurists and urban planners offered accounts of smart cities, smarter planning, and urban design-thinking. There was a noticeable disconnect between the matters of concern and the remedies from the first panellists, and the subsequent “PowerPoint engineering” presentations and the hype from academics and industry. These travelling technocrats, presented stories of solutionism and exemplary large-scale case studies – full of buzzwords like “digitizing participatory democracy”, “supply chain urbanism”, “co-shaping of public space” and “data-driven decision making”. In the middle of one presentation, an attendee turned to me visibly puzzled and exclaimed in a whisper, “What does this have to do with what we do!?”

While not the time to offer my own take on the rather avantgarde presentation, this sentiment was palpable during the remainder of the summit amongst attendees. Split into three large groups we spent the rest of the day in roundtables discussing smart mobility, smart infrastructure and smart energy, and attendees reflected on their BIAs’ existing (smart) programs or desires to adopt them. Some recounted their use of data, sensors, CCTV, public Wi-Fi, applications, and platforms; however, many struggled to conceptualize their small-scale innovations in relation to “smart cities” and some questioned who should be the driver of “smart” change.

Over the course of the day, organizers attempted to craft a story of BIAs and their role in the smart city movement. In response to the skeptical atmosphere, and shifting away from specific technologies, they focused on reasons to adopt technologies, and re-defined “smart”. To those in room, their work was already “smart” and “data-driven”. Rather than race to adopt a technology or solution, they felt BIAs were in a better position to define and understand problems on the ground. To them, BIAs are test beds, places to “ask critical questions and innovate”, “pilot and test ideas and technology” as well as “replicate and duplicate” tested practices from elsewhere.



Figure 28. Summits, Incubators and Test Beds

A “test bed” is not an experiment as conventionally conceived in ideals of science. The term does not denote the unearthing of a truth about the world. The phrase *test bed* emerges in the engineering literature to describe a controlled and often isolated development environment in which to test the operability of new technologies, processes, or theories for large systems. [...] This city is an engine for urban growth even as it purportedly tests the capacities of its own infrastructure. In essence, it is an experiment that cannot end, because every limit becomes a new engineering challenge, a new frontier to develop toward an ever-extendable horizon (Halpern et al., 2013, pp. 290-291).

Against a priori theorizing or the treatment BIAs as stable entities, in this dissertation I have sought to trace the mobility and use of geospatial applications and data-driven practices in eight Canadian BIAs. Guided by the aforementioned discussions and theories, this dissertation offers accounts of the (re)assembling and aligning of BIA constituencies around a common goal: the creation and management of value. As market devices, constantly innovating in order to make mandates doable, the previous empirical chapters foreground valuation practices, and relations of accountability and visibility. While section 7.1 serves as a cursory summary of the cases, in this chapter I review key findings, their significance, and the limitations of this study, as well as offering recommendations and future directions.

8.1 Findings

In response to calls for detailed empirical studies of urban policy mobility and mutation, this dissertation has offered an account of practices which make up the *malls without walls* that have become common fixtures of our urban landscape. Critically interrogating the entrepreneurial logics and challenging the purported austerity politics that undergird these market devices, I have focused on governance and accountability on the ground.

In Toronto, three BIAs have used a smart application to make streetscape beautification and maintenance more doable. Predicated on organizational determinations of assets and threats the use of GeoPal, as a valuation device, has rendered objects, places and people countable. The

resulting data, making for tellable stories, has enabled BIAs to align constituencies in order to fulfil maintenance requests. Specifically, by making reporting and responding more “efficient”, BIAs were able to hold various agencies to account with the app generated data. As demonstrated in this case, BIAs are not private entities engaging in self-help, rather they rely on public services and the upstreaming of responsibility to ensure the doability of their mandates, which meant delegating work and making others *do*. Furthermore, these app delegated accountability relations stabilized BIA knowledge claims, not only about who should be held responsible, but also claims about the status of the area. In doing so, these tellable stories became more compelling to a wider audience guided by similar market logics. In other words, by engaging in ontological design and politics, for now these Toronto BIAs have secured their role in urban governance, like the platform itself – placed right in the middle and convening existing services.

In Vancouver, data and applications have been used to promote relations of visibility. Specifically, with the adoption of the City’s VanConnect app, some BIAs have found innovative ways of directing and diverting services to their areas. Also concerned with the perceptions of their areas, this public realm maintenance tool has made elements of clean and safe mandates more doable. However, limited by the applications’ partial features, which demonstrate a disconnect between BIA and City matters of concern, these organizations engage in a host of supplementary data collection practices. For instance, through counting and accounting, apps and data afford greater visibility to their matters of concern. The combination of these data sets makes for tellable stories about the area, which furthers the visibility of BIAs and some of the work that they do. Similar to relations of accountability, these accounts enable BIAs to engage in

advocacy, positioning themselves as assets to the City and region, and in need of further resources.

8.2 Significance

Arguably adding another “stabilized” account, in addressing the research questions this tracing project contributes to broader empirical, theoretical and methodological discussions.

Empirically this work offers two in-depth cases situated amongst much broader conversations, which complicate what BIAs are and how their practices move and mutate. These analyzed empirical accounts go beyond policy mutation, to *thicken* theoretical insights into urban data, surveillance, accountability and governance, as well as their intersections. By unpacking what accountability and governance look like in practice and at an ontological level, this work strengthens connections between studies of valuation, accounting and surveillance. In addition to these substantive and theoretical contributions, this work as well as my on-going projects considers theory as method building. In combination with forthcoming publications, this project adds practical insights and reflections, as well as recommendations for tracing urban assemblages (see Mackinnon, in press).

The assembling of these accounts serves to challenge mainstream and economic understandings of the accountability discourse that is pervasive in the BIA realm. By (ac)counting for their areas with these smarter geospatial technologies, BIAs have not only updated their practices but are also engaging in knowledge and ontological politics. Aligning with a current epistemological culture of accounting, urban (big) data has been cast by a variety of actors as a way of knowing and therefore governing. While exhibiting forms of accountability to their preferred constituency, through these practices BIAs attempt to stabilize their position and ontological security. In some instances, BIAs have extended these accountability relations to

the broader community – those not often included in their constituency. Yet, in other areas, accountability remains an inward organizational practice. With both intended and unintended consequences, accounting performs new arrangements of governance and agency. On the ground, accountability becomes delegated and distributed to a range of actors. However, in both of these cases, be it counting of people or advocating for harm reduction, the edge work of BIAs in conducting mundane governance is far from mundane. This work specifically building on Lippert (2010), Lyon (2004, 2006b) and Woolgar and Neyland (2013) makes the case for greater attention to *mundane surveillance*. Far from mundane these forms of data collection, tracking and accounting demonstrate the politics of nonhuman actors, as well as the implication of symmetrical approaches to tracking humans and nonhumans. These matters of concern, turned fact through seemingly mundane surveillance, highlight practices of inclusion and exclusion. *Who or what is (ac)counted and (ac)counts?* This particular economy of qualities – predicated on assetization, securitization and valuation – demonstrates what is valued.

The (in)congruencies between these cases also highlight the role of mundane corporate governance on the ground. Similar to other findings, these cases illustrate the innovative ways BIAs have found to draw on government resources. Rather than private or privatizing entities, these accounts of BIAs trouble conceptions of them as agents of self-help. Better affording STP, these apps enable creative ways of coping with, but also furthering the splintering of urban infrastructure. Specifically, these accounts of diverting, directing, and districting add to the growing critique of the PPP and BIA model. What does partnership afford and is it affordable? The adoption and circulation of valuation devices, by market devices is not necessarily new, but does further normalize their convener role. In other words, both these technologies position

themselves in the middle, not disruptive or wholly new, but rather means of navigating and perpetuating administrative fragmentation.

As forms of administration engaging in the redistricting of spaces and bodies, these instances of the actually existing smart city or ordinary smart city demonstrate the logics of platform and test bed urbanism. As illustrated throughout and foregrounded in the preceding vignette, BIAs are technologies predicated and reliant on a permanent critique of government. These forms of governance are not in the business of solving problems, instead their existence is a form of constant innovation and change. BIAs are not stable or static entities; rather as “mundane and mutant devices of power” (Lippert, 2010) they continue to (re)assemble constituents based on pressing matters of concern.. An unending experiment, I contend that the adoption of smarter technologies may signify a form of entrepreneurial urbanism 2.0, or at least attempts from entrepreneurial urbanism 1.0 to retain power. These two cases, while troubling a clear distinction between what happens when a “public” or “private” entity is able to control an app or platform, nonetheless, call into question what accountability is and what it affords.

Returning to the theoretical contributions detailed in Chapter 7, I contend that tracing BIA assemblages and their alignment (in particular around valuation) provides a strong exemplary case for combining theories from STS and political economy. The empiric chapter ground ontological discussions of governance, accounting and valuation by making critical connections between to market logics, data urbanism and quantification. In doing so, these points go further to dispel some of the false binaries outlined in section 3.6. However, while necessary situate the practices of BIAs, in terms of market logics and neoliberalization and participants’ conceptual repertoires, the focus on movement and alignment afforded by assemblage theorizing offers a more nuanced and granular explanation. BIAs are not wholly market devices, but nor are

they a-political or mundane. Instead, forms of theorizing which are able to report and account for their circulating practices are needed. While, I contend that these traced urban-surveillant-data assemblages are congealed value relations and politics, these assemblages do not hold their shape for long. Despite this and other stabilized accounts, they are also unstable and prone to mutation. In other words, these tellable and compelling stories are ongoing projects requiring continual work and alignment themselves.

Methodologically, while “traditional” or “classic” qualitative methods are employed, this project has made a clear case for methodologies of *tracing, following and arriving*. By foregrounding trans-urban policy pipelines and the movement of travelling technocrats, texts, and practices, I demonstrate the importance of multi-sited, fluid research methods. And in particular, multi-sited ethnographic work (e.g. conference ethnography and work-shadowing). This project, exploring the creation of “small” urban data through practices of (ac)counting, challenges contemporary big data discourses, critically unpacks *who and or what (ac)counts* in these platforms and resulting. While other methods are needed to trace and follow data assemblages and flows, given the various forms of black-boxing and privatizing that are currently underway, attention to data collection (in addition to its movement, analysis, and sorting capabilities/application) remains imperative.

8.3 Recommendations

In this dissertation, rather than solely trying to take a stand on who or what is right or wrong in the case of urban governance, I have offered detailed empirical accounts. As a researcher, I have attempted a symmetrical approach, asking the same questions of accountability to participants and myself alike. And while I question to whom these organizations are accountable and am critical of some their practices, in many cases I firmly respect the work of these front-line

organizations. Not a single story, of exclusion or revanchist practices, many of these BIAs have made strong attempts to be accountable to their *communities at large* – far beyond their organization or membership. From advocating for sex worker cooperatives, creating social enterprise programs that are rooted in inclusivity and sustainability, to lobbying for harm reduction programs for drug users – BIAs are not static entities nor only interested in narrow forms of organizational accountability. As market devices, responding to the retrenchment of government funding, splintered streetscapes; moreover, cognizant of the limitations of the market for providing for many, BIAs continue to mutate and adapt to new matters of care and concern. While like others, I question if these *should be* the organizations to oversee our streets (as well as their limitations in doing so), pragmatically they are the institutions we currently have. And with this recognition, and in order to be accountable, rather than simply offer critique I outline some preliminary recommendations. As detailed below, through future work, accessible reports and follow up conversations, I hope to spark meaningful discussion amongst a range of stakeholders.

In terms of the City and province, acknowledging the work of BIAs, should be done alongside a thorough accounting of BIA adaptation. With multiple City staff noting the changing BIA model, beyond fiscal accountability, city governments need to more aware of BIA practices as well as critical of both their intended and unintended consequences. Legislated by public bodies, and drawing on public services to carry out much of their work, the relationship between BIAs and city and provincial governments should better reflect this partnership. The case of VanConnect, while not a solution, does demonstrate how cities may play a stronger role in governance and accountability – “bringing matters back under their purview”. While those with resources to dedicate to data entry may still be able to direct and divert services, the City is better

able to take an active role, control its resources, and present some level of transparency and public accountability.

Rather than being obscured through chain of custody, and non-transparent accountability mechanisms, FOI mechanisms are powerful public tools which fosters the multiple and promotes broader accountability relations (Mackinnon, in press). However, as warned by Roberts (2000), these mechanisms have long been under fire. As once public services continue to be transferred or contracted to private and quasi-public entities, accountability and transparency have been devalued and or lost. In other words, what was once entailed by the “public” in previous incarnations of NPM organizations and PPPs, has been eclipsed by the “new” and the “private”, and so too have mechanisms for public recourse (Mackinnon, in press). With this shift to NPM, we need to see a similar shift in legislation to account for the new nature of networked governance. As the two cases demonstrate these organizations are fueled through public means and should be accountable to the broader public beyond membership. In other words, notions of competitive advantage and trade secrets need to be tempered with accountability, transparency and the protection of public interests (Mackinnon, in press). The law is malleable, and FOI mechanisms should reflect the changing nature how public services are being distributed. Under NPM, accountability and transparency are paramount; broader, nuanced understandings of the nature of these quasi-public entities, forms of networked governance, or assemblages needs to be reflected in the law (Mackinnon, in press). Given precedent set in other jurisdictions to include quasi-public and para-governmental entities in FOI mechanisms (Moe, 2001; Savage & Hyde, 2014), efforts to expand the scope of policy and legislation should be taken to the Office of the Information Commissioner. Otherwise, the keyholes and partial views we currently have may

continue to be narrowed and obscured, further limiting transparency and accountability in governance (Mackinnon, in press).

As mentioned, while discussions of accountability are pervasive in the BIA realm, we need to go beyond these economic understandings of governance. By extending the work of safe and inclusive, and respectfully partnering with the community at large, BIAs can and are taking steps to extend who is part of their constituency, and who they are accountable to. To put it more forcefully, BIAs (and the governments that legislate them) are responsible and accountable to communities far beyond the business owners whom they represent. Although many of the toolkits on the BIA market specify data collection practices and are aware of consent, purpose limitation, sharing and storage; practices of safe and inclusive also need to be foregrounded with data collection. Like other organizations fueled by data, just because something can be collected, does not mean that it should. As discussed at the IDA World Town Summit, understanding the purpose or “why” behind data collection and use is critical. While in some cases, BIA data collection is used to advocate for more resources and programming, it is imperative that these are not the only voices at the table. What are the blind spots that fall outside of BIA and City data collection practices? What alternatives are there to accounting and visibility in order to promote more accountable governance for all?

8.4 Challenges, Limitations and Future Directions

This dissertation has focused on two Canadian cases¹¹² of BIAs using geospatial applications and data-driven practices in Vancouver and Toronto. These sites and cases were selected based on interest in “innovative” BIA practice, as well as access and convenience. While, highly instructive and resulting in great engagement, they also posed challenges and limitations.

For example, despite the high response rates and levels of access, as mentioned, issues of non-response factored into the Toronto case. Contrary to my initial concerns, BIAs staff were very willing to meet and discuss their work, City staff on the other hand were much more difficult to access. While persistence paid off, and I was able to secure five interviews with City of Toronto officials, in some cases this required upwards of 16 separate emails to various staff at one agency, numerous phone calls, and three cancelled or “double booked” appointments. In one case, I was only marginally successful in securing an interview after I got both a BIA executive director and a staff member from another city agency to contact the agency on my behalf. While I recognize and respect the heavy workloads of agencies like Streets to Homes (less so, 311 and City councillors), in studying accountability more practically, I am concerned with the unwillingness or inability of these agencies to engage with the public more broadly. After interviews were cancelled, I was directed to defunct websites and dated existing research and reports, that had no relevance to the interview script that I had sent. Related to the calls above for more accountability from the city, I contend that much stronger and more applicable FOI and ATI mechanisms, which better acknowledge the role of public agencies in these supposed “private” undertakings, are required. In follow up work I intend to request documents from various Toronto City offices in order to compel greater transparency; however, based on chain of

¹¹² As mentioned, I have conducted research on GeoPal beyond this Canadian case, and also hope to conduct a comparable case in the American context.

custody and the status of BIAs as private agencies, I remain skeptical about this next step of the research.

Raising similar “public” and “private” tensions, the study of propriety apps highlights issues of access. Although BIA staff and the app representatives were mostly happy to answer questions and demonstrate the product, this study is limited to the use and adoption of these technologies by BIAs. Work-shadowing was an instructive means of seeing how the technology was used on the ground, and the various ways in which staff adapted and tailored it to the smart city use-case. While I could have chosen to study two public apps (or even two proprietary/private apps), by following the actors and their practices, the (in)congruencies in cases highlight interesting tensions that I will continue to explore. For example, as mentioned above, future work on public C2G applications and surveillance will look at other user groups and include a more applied analysis of technological affordances and features.

With an interest in studying up, as well as an appreciation of research fatigue and the longstanding, exploitative and harmful practices of some researchers in my selected field sites,¹¹³ my study does not focus on the lived experiences of people who are counted. From this vantage point and acknowledging my positionality, for some, my research potentially reinforces or falls prey to the same critiques I make of my participants. *Who counts and is accounted?* While this focus is a clear limitation, it has also been built in from the outset as an ethical standpoint. Sensitive to movements like “nothing about us without us” and recognizing the work of various

¹¹³ Boilevin et al., 2018, have created an excellent resource and manifesto for research on the DTES in particular. Echoing long standing requests, they stress that “the DTES should not have to bear the brunt of the costs associated with research. We should not have to continually exhaust ourselves working with researchers to ensure they are comfortable and acting respectfully within our community” (p. 4). Cognizant of the role of researchers in reinforcing exploitation, based on my own social position, I see the importance in studying up, especially in regard to organization which govern, account, and intersect with others. I strongly support Boilevin et al.’s call to extend research ethics beyond our academic institutions to the community at large with the development of community research ethics boards. As researchers we need to go beyond ethics and reflexivity to also ask ourselves what does accountability look like on the ground?

community groups in these areas, my aim for this work was to supplement on-going discussions. Focused on often mundane and overlooked entities of corporate governance, I hope this discussion of accountability helps spark policy and practice recommendations (many of which are not new to community members). As part of future work on this project, I aim to involve BIAs, journalists and civil liberty groups in order to present accessible findings to the community at large.

Beyond these two cases, there are many other BIA initiatives using apps, platforms and data. For instance, I could have focused on Calgary's Retail Cameras on Patrol Program¹¹⁴ (which has also been piloted in Victoria, Surrey and Lethbridge), or Edmonton's Downtown Business Association Security Network, Winnipeg's Exchange District Community Homeless Assistance Team, or many other programs. This dissertation, with a particular case focus, offers insights into the makings of BIA assemblages; however, as test beds they will continue to change and adapt. While outside of the scope of this dissertation, other collected data highlights the increasing roles of partnerships, advocacy, social enterprise and trans-urban policy pipelines. I hope this project highlights the importance of studying the unending circulation of practices within BIAs, as well as their granular and uneven manifestations on urban landscapes.

¹¹⁴ "Retail COP is a web-based, interactive program that permits business owners to share information relating to known and unknown retail criminals in our community. It allows retailers and the Victoria Police Department to fight back against organized retail crime and illegal activity that includes theft, fraud, counterfeit currency, robbery and break & enter. The Retail C.O.P. program is based on a network of businesses sharing information downloaded from security camera systems and distributed amongst themselves and the police" (DVBA, 2016).

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Appendix A

Research Ethics Approval



April 26, 2017

Ms. Debra Mackinnon
Ph.D. Candidate
Department of Sociology
Queen's University
Mackintosh-Corry Hall, Room D431
Kingston, ON, K7L 3N6

GREB Ref #: GSOC-149-17; TRAQ # 6020706

Title: "GSOC-149-17 Converging Networks: Following surveillance practices across Canadian Business Improvement Areas"

Dear Ms. Mackinnon:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "**GSOC-149-17 Converging Networks: Following surveillance practices across Canadian Business Improvement Areas**" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen's ethics policies. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your research project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one year period (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at <http://www.queensu.ca/traq/signon.html>; click on "Events"; under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies". Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at the Office of Research Services for further review and clearance by the GREB or GREB Chair.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Sincerely,

A handwritten signature in cursive script that reads "John D. Freeman".

John Freeman, Ph.D.
Chair
General Research Ethics Board

c: Dr. David Murakami Wood, Supervisor
Dr. David Murakami Wood, Chair, Unit REB
Ms. Michelle Underhill, Dept. Admin.