INFORMATION PRACTICES AND URBAN SPACES: PORTRAITS OF TRANSNATIONAL

NEWCOMERS

By

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ABSTRACT OF THE DISSERTATION

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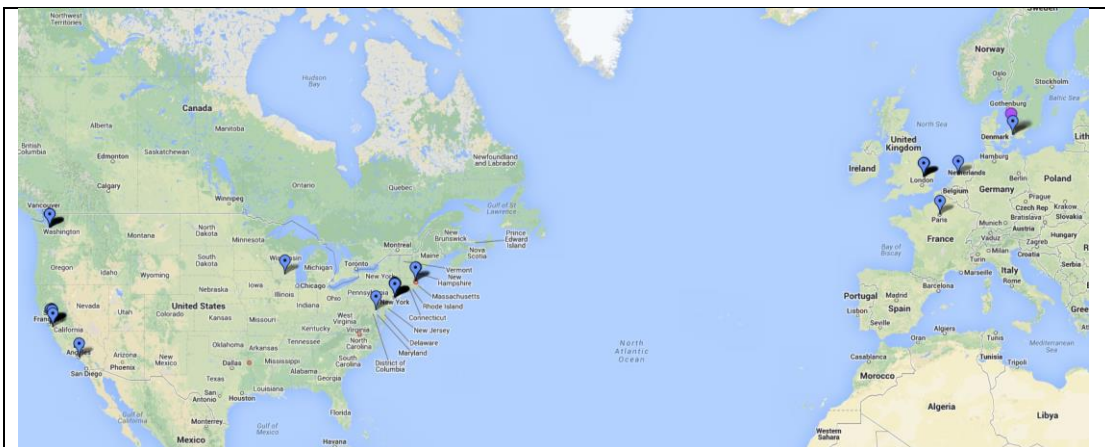BY JESSICA LINGEL

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This dissertation takes a qualitative approach to investigating the inter-relatedness of urban space and socio-technical practices, drawing on the experiences of transnational newcomers in New York City. Accounts from 18 transnational newcomers, all of whom had arrived in New York within the past two years, form the core text of analysis. In contrast to research on transnational use of information and communication technologies that focuses on a single nationality, participants hailed from 18 different countries; they also ranged in age, profession, socio-economic background, and neighborhood in New York. The heterogeneity of participants allows for the identification of information and technological practices that emerged across these different facets of identity. Three qualitative research tools were deployed in this analysis: conversational interviews, participatory maps and walks through participants' neighborhoods. Findings are divided into three chapters: information practices used to become familiar with city space, newcomer relationships to the city, and the link between technology and identity work. This research suggests implications for library and information science theory related to how "everyday life" is conceptualized, as well as the design of online maps and games related to urban space.

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Finally, any project as rooted as mine in the interrelations between space and practice should acknowledge the sites in which work was produced. Below is a map of locations where I wrote this dissertation. Thanks to the baristas, bartenders and librarians whose work was woven into mine.

Fig. 1: A map of locations where this dissertation was written.

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Chapter 1: Introduction

A migrational, or metaphorical, city thus slips into the clear text of the planned and readable city – de Certeau (1984, p. 93).

As of 2008, more people worldwide were living in cities than not (United Nations Population Fund, 2007) for the first time in human history. Urbanization[1] is a global phenomenon that involves intra- as well as inter-national movements, and presents political (Appadurai, 1990, 2003; Sassen, 1990/2001, 2002); cultural (Ehrkamp, 2005, 2008; Staeheli & Nagel 2006) and environmental (Marzluff, 2008; Shukla & Parikh, 1992; York, Rosa & Dietz, 2003) implications. Within the context of multiple disciplines examining the flows of people, information and resources to urban areas, urban informatics operates at the convergence of urban life and information and communication technologies (ICTs). Urban informatics scholarship takes as a key premise that city spaces are increasingly inseparable from the technologies embedded in them. As Bentley, Cramer, Basapur and Hamilton (2012) argued in an article on locative media and urban space, "Cities are now hybrid spaces that combine digital data with the traditional environment. They consist of many layers: for example physical layout, infrastructure and locations, socially constructed places, individuals and social structures, and reviews of locations on mobile and web services" (p. 1603). On the one hand, this emphasis on the digital as rendering urban life suddenly more complex and layered obscures the extent to which city life has always been theorized

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[1]Approximately 82% of the total U.S. population lives in urban areas, as of 2010, with a 1.2% annual rate of growth estimated between 2010 and 2015 (CIA World Fact Book, 2013). Additional statistics about urbanization and transnational migration in the United States and New York City (the location of this study) can be found in Appendix 5.

as bound up in innovation and technology (See Benjamin, 1972/1999; Bull, 2000; Rutherford, 2011; Simmel, 1905/1967). On the other hand, it is true that mobile phones, PDAs, social network sites and locative media have infused daily life (urban as well as rural), creating a socio-technical fabric that reshapes norms of interaction and mobility even for those who may not personally possess those technologies. In this project, I examine the experiences of transnational newcomers in New York City in order to identify and analyze information practices used to become familiar with city space. More broadly, I am interested in crafting a holistic analysis of socio-technical fabrics in a way that reflects the inter-connectedness of people, space and technology in everyday urban life.

Newcomers to a city are confronted with gaining an understanding of how urban space is organized, as well as managing flows of information about the city and themselves to a transnational network of friends and family. In discussing methodology of his highly influential work on conceptualizing urban space, Lynch (1960) admitted that his study was "confined to images as they exist and one point of time. We would understand them far better if we knew how they develop: how does a stranger build an image of a new city?" (p. 157-158). Lynch's reflections point to the usefulness of studying newcomers, who by definition are confronted with the task of building images of a new city, and furthermore of using those images to navigate existing city structures and produce new ones. In order to address the question of how strangers build an image of a new city, I locate this project as a specific analysis of urban informatics and transnational newcomers[2], people who have undergone

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[2] I use the term transnational newcomers over the term immigrants for two reasons. First, it avoids associations with a highly politicized term in cultural, political and social discourses. Although these associations are definitely relevant in terms of the context

movement from one place to another, whether temporarily or permanently, once or many times, individually or as part of a group. It is precisely because transnational newcomers operate from a position of outsiderness that it becomes possible to identify systems of order and organization that have for city natives been naturalized by use to the point of invisibility (Bowker & Starr, 1999, p. 295).

Having argued for an investigation of newcomer information practices as a basis for studying urban informatics, it doesn't necessarily follow that one has to use the experiences of transnational newcomers. An alternate approach to studying urban newness could focus on experiences of intra-national versus international movements, a study of urbanization within the U.S., for example, or between large cities. Such an approach could avoid difficulties with language and (to some extent, at least) cross-cultural tension, allowing a narrower focus on differences between urban environments but within a larger shared culture. Studying transnational newcomers accomplishes two objectives – on the one hand, it provides a lens for studying newness and outsiders, as well as information practices in situ, or developing versus developed practices. Analyzing experiences of newcomers from other countries also allows me to situate this work within discourses of transnationalism. Transnationalism refers to a subject possessing "ties to two (or even more) societies … At its extreme, [transnationalism] implies that individuals can be literally at home in, and participate in the life of places that are separated by national borders and may even be at quite different points of the globe" (Alba & Nee, 2003, p. 145). Ideologically, my project

of studying transnational migration in the United States, they are not the primary focus of this investigation. Second, and relatedly, the term is more inclusive, such that it can incorporate groups that might otherwise not be associated with the term immigrants, such as exchange students and tourists.

interrogates this claim of equating transnationalism with being at home in multiple places through the lens of human information behavior (HIB), in that I'm looking to identify and analyze the informational and technological practices used to become familiar with new urban spaces, as well circulate flows of information to transnational networks of friends and family.

Theorization of transnational newcomers also allows for close consideration of discourses surrounding transnationalism and ICTs. Recent studies of transnational migrants in the context of urban informatics have examined the use of ICTs, grouping participants by nationality, identifying the extent to which ICTs are used to keep in touch with social networks abroad (Bacigalupe & Cámara, 2012; Benítez, 2012), make decisions about moving (Amit & Riss, 2007; Mehra & Papajohn, 2007) and processes of settlement into new environments (Caidi & Allard, 2005; Quirke, 2006). Although these investigations are useful contributions to understanding how technologies are deployed across a range of social contexts, as a whole, these studies reflect two disciplinary limitations: focusing on the experiences of a single nationality and perpetuating a progress narrative of technology. I return to these themes as motivations for inquiry in the following section.

In the remainder of this chapter, my objective is to explain why this investigation matters and to justify the conceptual point-of-view anchoring this project. I begin by drawing out motivations for this project: first, building a more holistic account of transnational use of ICTs, as opposed to research that focuses primarily or solely on technologies as tools of connectivity and facilitating everyday life. Second, I draw on a heterogeneous participant population in order to analyze practices that emerge across backgrounds and nationalities. I also expand on my claim that transnational

newcomers offer a useful vantage point from which to analyze and critique urban infrastructure (which itself has components and manifestations that are spatial, social and technological – see Sandvig, 2004) because they occupy a subject position of outsiderness. I then turn to relevant bodies of scholarship in order to introduce concepts at the core of this project: information practices and technological protocols, drawing on human information behavior (HIB) and science and technology studies (STS) literature, respecitvely. By working through these constructs, my purpose is to introduce terms used throughout the remainder of this qualitative analysis, and thus limit the scope of what does and does not fall into my area of inquiry. I conclude the chapter by outlining the remaining chapters of this dissertation.

Context: Motivations for Inquiry

In many ways, this project grew out of frustrations with research I encountered on technology and transnationalism, while also being informed by experiences volunteering at English as a Second Language (ESL) programs in New York City. Whether in the popular press or academic texts, I felt continually confronted with narratives of technology and progress to construct immigrant experiences as easy, or at least easier than was previously possible. Secondly, I noted a prevalence of nationality-based research in studies of immigration. Both set up contradictions that I encountered throughout my volunteer work.

In the first case, conventional narratives of transnational migration that emphasized the ways in which technology made urban life easier didn't track with a lot of the experiences that people in the ESL program shared with me. By "conventional narratives" I am specifically referring to a deeply-ingrained technological paradigm that stresses progress and innovation as guiding principles of

measuring the value of a particular technology, which comes at the expense of recognizing potential productivity and usefulness of failure, retrogrades and rupture (Bijker & Law, 1992). In the context of transnational migration, progress narratives of technology emphasize the ability of ICTs to collapse distance and facilitate the maintenance of social ties (e.g. Amit & Riss, 2007; Bacigalupe & Cámara, 2012; Benítez, 2012; Mehra & Papajohn, 2007). Without wanting to deny the extent to which technology has undeniably made some parts of transnational migration easier, I knew from my work teaching ESL that technology could also make things quite complicated. I had seen people highly adept at technology struggle with daily socio-technical tasks like purchasing groceries or hailing taxis, and I'd come to understand that decisions about keeping in touch with people abroad were more complicated than whether or not people had access to social network sites or email. I began to wonder about what the city looked like to the transnational folks I met – how did they make sense of city space? What did they need to feel familiar with their surroundings? What roles did technology play in the midst of all this?

Another motivating factor for this project grew out of what I perceived as a disconnect between how cultural studies discourses constructed transnationalism and the methodological choices made in studying transnational movements, particularly in my own field of LIS. Although contemporary immigration theory is frequently informed by globalization theory that emphasizes deterritorialization and localization, there is nevertheless a tendency to reify these very borders by using nationality as a key point of inclusion (Brickell & Datta, 2011). LIS research on transnationalism takes this nationality-based approach all but exclusively (e.g. Allen, Matthew & Boland, 2004; Caidi & MacDonald, 2008; Courtright, 2005; Dali, 2004, 2005; DeZarn, 2008;

Fisher, 2004; Fisher et al. 2004; Jansen & Spink, 2005; Komito & Bates, 2011; Luévano-Molina, 2001; Nedlina, 2007; O'Toole, 2005; Quirke, 2008; Prock, 2003; Shoham & Rabinovich, 2008; Shoham & Strauss, 2007; Su & Conaway, 1995; To, 1995). Outside this methodological approach, the disciplinary tendency is to focus on the library as an institution that draws together a wide range of transnational migrants (e.g. Alexander, 2008; Allard, Mehra & Qayyym, 2007; Beall, 2006; Bilal & Bachir, 2007a, 2007b; Bober, 2008; Bordonaro, 2006; Chu, 1999; Cooper, 2008; Dilevko & Dali, 2002; Duncker, 2002; Fisher et al. 2004; Hickok, 2005; Jensen, 2002; McGowen, 2008; Novotny, 2003; Pokorny, 2003; Public Library Quarterly, 2008; Smith, 2006). In contrast, I wanted both to underscore the heterogeneity of transnational newcomers in New York (and the U.S. at large) and to avoid essentializing nationality. As well, I wanted a holistic understanding of information practices and resources, and thus do not focus on, for example, the extent to which libraries are or are not meeting the needs of different transnational populations (e.g. Burke, 2008; Public Library Quarterly, 2008).

Wanting to counterbalance these two tendencies – univocal depictions of technology and nationality-based methodology – my objectives in crafting a project on transnational newcomers and urban informatics centered on taking a holistic approach to information practices and uses of technologies, as well as bringing together a heterogeneous population of research participants. Before proceeding to the theoretical frameworks for this project, I turn to one final motivating factor for my investigation, the claim that by gathering and analyzing experiences of transnational newcomers, it becomes possible to theorize city space and contingent practices of technology and information in new and useful ways.

Urban Informatics at the Margins

A central premise of my research is that experiences of transnational newcomers navigating city space provide important insights into urban infrastructure, construed broadly, precisely because they are outsiders. Everyday city life for participants includes a range of socio-technical practices related to urban informatics, but it also includes experiences of otherness and marginalization that shape how participants make sense of and experience their lives in New York City. Both because transnational migrants are new and because they are from elsewhere, their experiences provide a way of identifying and conceptualizing practices that are made invisible through everyday use for natives (Bowker & Star, 1999). Defined as "the quality or state of being radically alien to the conscious self for a particular cultural orientation" (Merriam-Webster, 2011), alterity is a particularly relevant term for the study of migrational individuals, insofar as the process of migration requires being placed in a position of unfamiliarity. In order to claim alterity as an analytical pivot, I want to unpack some of the theoretical contours of alterity, and address some of the related ideological and methodological concerns raised by studying non-dominant groups. I then develop a conceptualization of transnational newcomers as occupying positions of alterity, arguing for the importance of analyzing transnational migrants as offering an othered view of city space.

Conceptualizing alterity. At its most inclusive, a position of alterity can be conceived of as being constructed as some kind of stranger. In Ahmed's (2000) analysis, the stranger is a relational construct that allows natives to define themselves as belonging and being at home through identifying those who do not belong (p. 5). For Ahmed, these processes of differentiation take place primarily in the public

sphere; as Alba and Nee (2003) have argued, although intercultural differences may be tolerated in private spheres, conformity to mainstream values (including, crucially, language) is expected and frequently demanded in public (p. 143). Douglas (1984) has written on constructs of contaminants and messiness as that which does not conform to social conventions of order, which is another, related way of conceiving of alterity. Using the metaphor of dirt, Douglas has written "where there is dirt there is system. Dirt is the byproduct of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements" (p. 35). Between Ahmed's construction and Douglas' is a conceptual development for explaining the underlying tensions that coalesce around otherness, where figures of alterity enact disruptions in hegemonic systems of order. Given the disparities in terms of affordances and acts of discrimination meted out to different groups of alterity[3] (and within these non-dominant groups), I turn to a consideration of ways in which transnational newcomers can be considered marginal.

Migrational newcomers as marginalized. On the face of it, it is perhaps immediately obvious how migrational individuals constitute a non-dominant group. Zolberg's (2006) historical study of immigration law and policy in the U.S. demonstrated the extent to which immigrants have repeatedly and consistently been a target of social, legal and political persecution. Statistically, immigrants in the U.S.

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[3] Despite the importance of recognizing these differences, I am reminded of Douglas' (1984) assertion that "all margins are dangerous" (p. 121). Thus although power (and disempowerment) is distributed heterogeneously across different types of otherness, to some extent, any position of alterity marks a challenge to hegemonic systems of order. This broad definition of marginality (as one engendered through membership in multiple communities) is a useful one for enabling reflection on positions of power and powerlessness, but asserting that "we are all marginal in some regard" (Star, 1991, p. 52) risks collapsing differences between positions of marginality.

today continue to be poorer, less educated and less often employed than the native born (Waldinger, 2001, p. 165), and they are a frequent target of social and political attack, particularly during economic downturns. These prejudices have a longstanding historical precedent in the U.S. and represent a complex relationship between openness to immigrants on the one hand and intense suspicion of newcomers on the other (Zolberg, 2006, p. 386). It should be noted that making sweeping statements on the social standing of transnational migrants collapses the differences contained within this diverse population. Alba and Nee (2003) argued for the need to recognize the heterogeneity of immigrants, particularly in terms of economic capital (p. 28). Similarly, Waldinger (2001) claimed that "socioeconomic diversity stands out as the distinguishing characteristic of new immigrants" (p. 81) and Hao (2007) has noted the bimodal distribution of wealth among immigrants in the United States as concentrated among the very wealthy and the very poor.

Participants in my study reflect these vast differences in education, privilege and employment. On the one hand, Midori[4] (38, Japan) was a post-doctoral researcher at New York University, living alone in an amenity-filled building in a very well-off part of New York (Midtown). On the other, Julio (60, Dominican Republic), was unemployed and living in a two-bedroom Bushwick apartment with four other members of his family. Most participants fell somewhere in between those two extremes. *All* participants felt some degree of outsiderness as transnational migrants. This was true even for those who were Caucasian and fluent in English, like Alice (26, Australia), who explained:

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[4] Pseudonyms are used throughout this text to refer to participants. For details on recruitment strategies and screening, see Chapter 2. For details on participants, see Appendix 1.

> Even though I speak English, I speak it differently and people don't always understand me. So it's not just about language, it's vocabulary and slang. But people always know from my [Australian] accent that I'm from somewhere else … And you just get so tired of it some days, always answering the same questions about where I'm from and what it's like – the stereotypes! So yeah, I know it's easier for me than for other [transnational migrants], but I'm still an outsider, I can't say I belong here.

Being outsiders presents difficulties for transnational newcomers in terms of managing daily interactions without cultural, psycho-social referents that facilitate and govern interpersonal and institutional interactions. These difficulties stem from the merely inconvenient (including rituals as mundane as shaking hands or standing in line at the grocery store, to provide examples from participants) to gravely dangerous and occasionally even lethal – one can read any number of hate crimes as resulting from conflicts rooted in a refusal (on the part of the dominant) to recognize the (rights of the) other.

Among people I interviewed, experiences of marginalization and levels of privilege varied widely. To set up another contrasting pair of participants, Luka (29, Georgia) represented a highly mobile, highly educated set of affordances; throughout the six months I spent as his conversation partner, he travelled frequently between the U.S. and his native Georgia, as well as countries in Europe. He landed a prestigious internship at a large non-governmental organization and had a fairly extensive professional network in New York. In comparison, Ishmael (42, Togo) was an asylum seeker with a very limited social network in New York. Estranged from his family in Togo, Ishmael was unable to work legally in the country and largely dependent on volunteer work to occupy his time, meet new people and provide him with basic needs like food and accommodations. My point here is both to recognize that analyses of alterity cannot collapse differences in privilege and marginalization within a particular

group (as between Luka and Ishmael), and to suggest that even for people who experience some kinds of privilege, other kinds of marginalization are still an important part of how they experience the city (as suggested by Alice). Without wishing to downplay or obscure the extent to which these difficulties are real and troubling, from a research perspective, these difficulties generate a site of inquiry. As outsiders, accounts from migrational individuals of navigating conflicting socio-cultural norms can bring into relief dynamics of power, difference, tolerance and alterity.

At the same time, to focus so narrowly on transnationalism inheres certain conceptual exclusions. First, the emphasis on migration stands to collapse differences between the migrational. As one participant, Lalo (36, Chile), described:

> You have many kinds of immigrants, many sorts of immigrants, many sorts of people that came to the United States for many sort and kind of reason, and kind and sort of dreams, and kind and sort of objective for their life. It's too general. I don't know, it's big, a huge word, immigrant. I know just pieces of this word, you know? And almost all of my opinion is to hear about more than to have an experience with that word.

Lalo's distrust of the term immigrant covers a lot of ground – he touches on the fact that the term immigrant elides important differences among a wildly heterogeneous population, and that the word carries many layers of political valence without necessarily speaking to actual immigrant experience. Lalo's critique speaks to key difficulties in researching transnationalism, including the need to construction transnationalism in a way that captures differences as well as similarities (Kim, 2010), and from an immigration studies standpoint, of adopting a transnational framework without reifying the very national borders that transnationalism intends to set aside or move past. In addition to the potential for collapsing differences between transnational folk, there is the potential for over-emphasizing identity in terms of

movement to the exclusion of other components of identity. In her work on the construct of the stranger, Ahmed (2000) argued that narratives of migration erase individual subjectivity through the emphasis on movement. In other words, the term "migrational" (or for that matter, immigrant) freezes one's subject position as one of perpetual movement, never settlement, always a traveler, never a native.

To address both these issues, I take a methodological approach that operates at the level of one's subject position, rather than one's community. In other words, although I take into account national and ethnic identity as fundamental components that shape everyday life (including experiences of newness in city space), the fundamental point of inclusion in this study is an experience of transnational mobility, and more specifically, of mobility to and in New York. Rather than focusing on ethnicity or nationality as the basis for inclusion, I consider information practices that emerge across nationalities (as well as age, gender and profession). Bringing together a diverse population of transnational migrant is useful in terms of Lalo's comments on the incredible heterogeneity of immigrant experience, and moves past a strictly national approach to thinking about transnationalism, as when immigrant studies scholars focus exclusively on one nationality. Speaking to Ahmed's (2000) concerns of emphasizing mobility at the cost of reflecting subjectivity, I take a methodological approach that involves multiple tools of qualitative research: interviews, drawing maps of city neighborhoods, and going on walks through parts of the city that mattered to participants in everyday life. In getting to know participants in this project over the course of many months, I'm able to address how familiarity with city space unfolds as a process.

Theoretical Constructs for Information and Technology in Everyday Life

Having outlined motivations for inquiry, I transition to setting up an analytical framework for an investigation of urban informatics by introducing key terms and constructs that anchor my analysis: information practices and socio-technical fabrics. Drawing on library and information science (LIS), I situate this project within a constructionist approach to HIB, defining my use of information practices and everyday life in the process. I then turn to science and technology studies (STS) to set up my analysis of socio-technical practices. Defining these terms allows me to clarify my relationship to urban informatics as an area of study that works across both LIS and STS.

LIS, human information behavior and everyday life. Throughout this work, I use terminology reflecting a social constructionist understanding of human behavior, where the term information practices inscribes a particular ideological, metatheoretical approach. Following Savolainen (2007), I use the term information practices to refer to the ways that information is produced, used and disseminated in particular social settings. Thus I fully embrace the metatheoretical frameworks situating information practices as being "firmly embedded in work and other social practices and that these practices draw on the social practice of a community of practitioners, a sociotechnical infrastructure, and a common language" (p. 122). I use the term information practices as a way of referring not only to uses and purposes associated with information, but the relationships of those uses and purposes to surrounding social structures.

A key component of this research is the study of the everyday. In LIS literature, a focus on everyday life typically draws on Savolainen's (1995) model of everyday life information seeking (ELIS). The core concept of ELIS involves "the acquisition of

various informational (both cognitive and expressive) elements which people employ to orient themselves in daily life or to solve problems not directly connected with the performance of occupational tasks" (p. 266-267). Savolainen's work has led to a turn in HIB literature toward information practices in an everyday (rather than professional) context (e.g. Agada, 1999; Fisher, Durrance, & Bouch Hinton, 2004; Heinström, 2003; McKenzie, 2003; Yakel, 2004). At the same time, Savolainen's approach is largely a psychological one, in that he attempts to connect psychological factors (such as extrovertedness) to specific information tasks (such as finding a job). As a result, his work is more focused on *what information is*, rather than theorizing *how information is used* in the specific context of everyday life.

To develop a conceptualization of everyday life information practices, I use de Certeau's (1984) notion of everyday practices. For de Certeau, examining common behaviors and habits offers insight into tensions that surface in attempting to maintain individuality in the face of dominating socio-cultural institutions (see also Simmel, 1905/1967). de Certeau structured his analysis around urban infrastructures, providing another point of convergence between everyday practices as a construct and my investigation of everyday information practices in urban space. As everyday life demands moving through city space in order to accomplish ordinary and mundane tasks; as people make choices and develop habits related to these everyday tasks, hegemonic ideological logics become visible in manifestations of physical infrastructure, as well as language and law. In terms of applying de Certeau's conceptualization of everyday life to a project in human information behavior (HIB), Rothbauer (2005) has argued:

> Certeau's theory of the practice of everyday life invites an analysis of social 'places' whose strategies lend stability to a set of recognized procedures, but

> importantly, it also insists on an investigation of the everyday actions of those who inhabit and travel those spaces. His ideas allow researchers to privilege the potentially banal information practices of ordinary people without neglecting the necessary constraints imposed by information systems of all kinds nor by the forms and fashions of informational texts themselves. (p. 287)

When I refer to everyday life throughout the following analysis, it is in the sense that Rothbauer attributes to de Certeau, of allowing analysis to surface from the potentially banal accounts of everyday actions of inhabiting and traveling through city space.

Socio-technical practices. The counterpart to studying information practices is studying technological protocols, meaning not just the technical proficiency of a given device[5], but also the social norms that surface around its use (Jenkins, 2006). In the context of transnational migration, for example, technological protocols manifest tensions of maintaining social relationships from one's point of departure, as well as new locations. For example, according to participants in this study, transnational users of social network sites switch between languages in order to guide their messages to certain parts of their online audiences. Social media represents only the most recent set of technologies used to transnational navigate flows of information as a result of migration – to provide just two examples, Douglas (1999) has documented the use of radio among immigrant populations in Chicago during the 1920s and 30s, and immigration activists in Los Angeles have developed VozMob[6] as a platform for

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[5] Etymologically, the distinction between technological and technical is a fine one, where the first relates to a specific science, art or handicraft, and the latter relates to science and industry, or innovative "gadgetry and computers." In sum, technological "connotes recent experimental methods and development, whereas technical has no such connotation" (Garner, 2003, p. 774). Here, I use technical to refer to use of a particular device, application or function, and technology to refer to interventions produced by people to lend order to everyday life (following Winner, 1998).

[6] For more information about VozMob, visit http://vozmob.net/en/about

transnational migrants and low-wage workers in Los Angeles to circulate narratives and messages about everyday life directly from cell phones. These technologies emerge out of socio-political contexts that shape the needs, uses and discourses of technical production and circulation.

In my interpretations of technology, I follow Latour's (1994) conceptualization of information and technological practices as a fabric woven with both human and non-human actants. In Latour's account of society, socio-technical narratives should be understood in terms of "displacement or translation or delegation or shifting" all of which refers, for Latour, to the efforts delegated to "human versus non-human actants in the zero-sum game of expending energy to achieve a task" (p. 229). With this encouraged visibility for the agency of non-human as well as human actants, Latour argued that socio-technical fabrics are never fixed, and that technological work is distributed across a collection of elements that serve as nodes of possible subversion, (re)figuration and play. I focus most narrowly on technology in Chapter Five, in which I analyze participant accounts connecting technological practices to identity work. In the other two findings chapters, I focus more closely on practices of information, while also bringing in analysis of technologies embedded within and tied to those practices. Following Miller and Slater (2000), my objective is to place technological protocols in their surrounding material cultures, such that by following threads of information and technology in the everyday lives of transnational newcomers, I'm able to tease out overarching forces of globalization and rapid technological change.

Key Findings: An Outline

Having introduced key motivations and disciplinary context for my project, I now provide an outline for the remaining chapters of this dissertation. In the next chapter, I discuss my methods for this investigation, including recruitment strategies and descriptions of participants and research sites. I also describe the three qualitative research tools used to gather accounts of everyday urban life: conversational interviews, participatory maps and walks through participants' neighborhoods, which I refer to as participatory wandering[7]. I conclude the methods chapter with a discussion limitations inherent to this methodological approach.

I structure my findings along three themes that emerged from interviews: practices of familiarization, city imageability and practices of demarcating urban space, and the interrelations between technology and identity work, which loosely correspond to three bodies of scholarship influencing this project: HIB, cultural geography and human computer interaction (HCI), respectively. In the first of these findings chapters, I discuss participants' practices for familiarization with city space. Interviews with transnational newcomers pointed to the role of habit in getting to know new surroundings, where participants deliberately shifted everyday routines in order to counter experiences of lostness. Participants also talked about using undirected walks through city space, which I refer to as wandering, to become familiar with their surroundings. As a whole, these information practices open up a discussion of how technology can shape relationships to urban space, which I tease out by comparing wandering (as undirected but purposeful engagement with city space) and the use of online maps (as rooted in efficiency and saving time). My analysis of

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[7] I'm grateful to Christina Dunbar-Hester for suggesting this term.

wandering as an information habit points back to larger discussions of the role of agency in HIB, which I address more fully in the concluding chapter of this dissertation.

In Chapter Four, I analyze newcomer relationships to space, first examining city imageability (the physical features that come to represent urban space) in terms of landmarks and scale, drawing largely on participatory maps. Imageability for participants was largely tied to issues of navigation, underscoring the extent to which how newcomers perceive city space is informed by primary concerns of recent arrivals: sensemaking and orientation. I then analyze participant references to the importance of social practices as a way of organizing urban space. Given that participants all had experiences of transnationalism, I use the construct of ethnic enclaves to analyze participant relationships to space in terms of ethnicity and nationality. This informs a discussion of the role of neighborhoods in city space, where I argue that neighborhoods are a vital means of sensemaking for newcomers. I also address a longstanding connection between neighborhoods as a site of collective enforcement of behavior norms in the narrower (and arguably more subversive) context of ethnic enclaves.

In the last findings chapter, I focus on uses of technology as related to identity work. I first discuss participants' use of social network sites (SNSs), specifically Facebook, as part of their everyday lives as newcomers in New York. I address both the positive aspects that participants associated with Facebook (like keeping in touch with family) and the negative components (such as fatigue of perceived pressure to maintain connectivity and a loss of privacy). Along these same themes of benefits and drawbacks, I use the construct of code-switching, which refers to alternating between cultural identities, to discuss both the benefits and drawbacks of multi-lingualism. In

the second half of this chapter, I discuss references to technology used in offline identity work. Participants were deeply reluctant to be confused for tourists as they moved through city space, and deployed a number of technologies to avoid this conception. Throughout this analysis of identity work, technology is deeply intertwined with decisions about self-presentation, enabling participants to produce information about themselves (and the city) in ways that they could alter and manipulate to both online and offline audiences.

Across my analysis of everyday life for transnational newcomers in New York City, what emerges is the inter-relatedness of people, places and technologies, the core tenets of urban informatics. My objective is to untangle these threads of social, spatial and technological practices without losing sight of their coextensive-ness. Rather than attaching a discussion section to each findings chapter, I use the concluding chapter to draw out implications for HIB theory, urban policy related to technology, and the design of online maps and mobile games related to urban space. Taking a qualitative approach to the lived experiences of transnational newcomers allows for an investigation that fits within urban informatics as an area of study, while also connecting to scholarship on human information behavior, urban studies and transnationalism.

Chapter 2: Methodology

This project takes a qualitative approach to identifying and analyzing information practices of transnational newcomers in the New York City metropolitan area, and in this chapter I lay out the methodological contours of an investigation rooted in socio-technical practices and everyday urban life. I first provide details of the data-gathering process, describing recruitment strategies, research sites and participants, followed by a discussion of the research tools used in this investigation – conversational interviews, participatory maps and participatory wandering – and a description of data analysis. I conclude the chapter with a discussion of limitations inherent to this methodological approach.

The Research Process: Participants, Sites and Tools

A holistic approach to understanding information practices in everyday life requires sustained, multi-faceted accounts from participants, in this case transnational migrants who had recently relocated to the New York metropolitan area. My description of the research process begins with recruiting strategies and decisions, including a discussion of limitations to these approaches. I then briefly describe research sites before moving on to a discussion of specific research tools and analysis.

Recruitment strategy and research sites. In gathering a pool of transnational accounts, I deliberately sought out participants from different countries (with 17 countries represented by 18 participants) as well as age (which ranged from 22 to 60, with an average age of 33) and neighborhood in New York (among 18 participants, 17 neighborhoods are represented). Because a primary research objective was to understand how transnational newcomers become familiar with city space, I screened

participants based on the length of time that they'd in New York, limiting the pool to those who had arrived within the last two years (the average length of time in New York at the time of first interview was 11 months). This narrowing is distinct from urban studies research that focuses on city natives (e.g. Lynch, 1960) or research that doesn't disambiguate between experiences of residents and visitors in the analysis of information practices in city space (e.g. Vertesi, 2008).

Participants were recruited primarily from English as a Second Language (ESL) programs in and around New York City. Also called English for Speakers of Other Languages (ESOL), ESL programs vary in size, structure, cost and affiliation, but in general are intended to provide English language instruction to people whose native language is not English. Because improved language skills are associated with increased employability across levels of income and types of employment (Kasinitz et al., 2008, p. 44), ESL programs attract transnational migrants from a variety of backgrounds and work histories. This diversity matches my interest in drawing on the experiences of transnational newcomers from a variety of nationalities and experiences.

I recruited the majority[8] (16 out of 18) participants from ESL programs where I located people to interview directly through my volunteer work, as well as posting flyers. Between September, 2011 and May, 2012, I volunteered at five different ESL

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[8] Two participants – Alice (26, Australia) and Rob (28, Puerto Rico), were recruited from my personal network rather than ESL programs. I wanted to include experiences of transnational folk who were fluent in English, which they both are. As well, the unique situation of Puerto Rico in terms of U.S. immigration policy drew me to recruit Rob. Neither my participant pool nor my methodological approach lends itself to concerns of underrepresentation or bias in a strict sense; my aim was to gather a rich but divergent set of experiences from which I could draw out points of convergence among transnational newcomers in New York.

programs in New York City and Newark, New Jersey. Three of the programs (in Bushwick and Greenpoint in Brooklyn, and Long Island City in Queens) were associated with public libraries. At these locations, I lead ESL conversation groups that ranged in size from two to ten. In Newark, I volunteered at a community center that offered adult and teen education programs, including ESL; sessions typically were attended by four to eight people. I also volunteered at the International Center in New York[9] (ICNY). At the ICNY, I lead a weekly book group (with approximately a dozen members) and volunteered for one-on-one conversation partnerships. I had the most success recruiting at the International Center, partly because of spatial logistics that facilitated interactions with ICNY members: the Center includes a lounge, small cafe and computer stations, and encourages members and volunteers to converse and socialize. This made for an ideal environment for approaching people for interviews that I could often then conduct on the spot. As well, I've volunteered at the International Center for nearly six years. Members often recognized me as a longtime volunteer and likely felt more comfortable speaking with me than they might with a total stranger. In all cases, I notified administrators of these programs of my research interests, providing IRB approval and contact information as requested. For more detailed descriptions of these research sites, see Appendix 3.

In total, I spent approximately 200 hours volunteering with these different organizations. Beyond facilitating recruitment, participating in these programs provided constant opportunities for interaction with and observations of transnational migrants, and I often found myself in conversations that yielded insights

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[9] During the summer of 2010, I conducted a pilot study for this project at the ICNY, results of which can be found in Lingel (2011).

into processes of acclimation in city space, perceptions of differences between city natives and newcomers, and the importance of technology in everyday life. It should be noted that ESL programs are not the object of my research, but rather an entry point to locating participants. As Burrell (2009) has written in her paper on choosing sites for ethnographic research, "a well-selected entry point can generate a broad spatial mapping that maintains a concentrated engagement with the research topic" (p. 191). In this way, ESL classes provided a way of finding participants for my study, and as a point from which to extend inquiry into the everyday information practices of participants.

Participant Details					
Name	**Age**	**Nationality**	**Neighborhood**	**Length of time in NYC**	**Recruited from**
Alice	26	Australia	Bedford Stuyvesant	18 months	PN
Amelie	27	France	Flatbush	2 weeks	BPL
Araceli	29	Mexico	Jackson Heights	7 months	ICNY
Cecille	33	Cameroon	South Bronx	2 years	ICNY
Ishmael	42	Togo	South Bronx	6 months	ICNY
Julio	~60	Dominican Republic	Bushwick	9 months	BPL
Jorge	29	Spain	Washington Heights	6 months	ICNY
Juan	37	Uruguay	Ridgewood	3 months	ICNY
Kiki	32	Japan	Fort Greene	1 year	ICNY
Lalo	35	Chile	Greenpoint	4 months	BPL
Laura	34	Brazil	Astoria	1 year	ICNY
Luka	29	Georgia	Midwood	2 years	ICNY
Miao	36	China	Kips Bay	1 month	ICNY
Midori	38	Japan	Midtown	3 months	ICNY
Nalan	32	Turkey	Riverdale	2 years	ICNY
Noely	32	Venezuela	Jersey City	1 year	ICNY
Raul	22	Spain	Westchester	18 months	ICNY
Rob	28	Puerto Rico	Clinton Hill	1 year	PN

Table 1: Pseudonyms are used to provide confidentiality. Length of stay refers to amount of time in New York at the time of initial interview. Julio declined to provide his age, which I estimate to be around 60. In the "Recruited from" column, "PN" refers to recruiting through my social network rather than an ESL program.

Tying my recruitment strategy to my volunteer work provided a means of compensating participants in a meaningful but non-monetary way[10]. ESL learners typically pay for one-on-one conversation in English; for tutors with training in ESL instruction, rates can be quite high. Because interviews were conducted mostly in English, the process of participating in interviews was generally construed by participants as a benefit in and of itself. As well, the fact that I spent a significant of portion at these organizations doing things other than interviews or recruiting (leading conversation groups, helping with homework or just hanging out), the majority of people at the programs where I volunteered were very receptive to my project. On more than one occasion, people who had heard of my research by word-of-mouth communications sought me out at ESL programs and volunteered to participate on the spot, even when I had no express intention of conducting interviews that day. Table 1 provides participant details. Additional descriptions of participants are provided in Appendix 1.

Recruitment strategy limitations. There are limitations of using a recruiting strategy that draws predominantly on the ESL population, in that my pool of participants is skewed towards transnational folk who are not fluent in English, as well as those who are able to afford the cost (either of time or money) for participating in ESL programs. There are two mitigating factors relevant to these limitations. First, as

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[10] There is a great deal of literature on the implications of monetary honoraria for participants in research (see Fetterman, 2007; Saukko, 2003) and there are advantages and disadvantages to both. Although impossible to establish definite rules for when one approach should be used over another, the methodological guidelines tends to coalesce around the importance of reflexivity on consequences for choosing honoraria in any form.

an ESL volunteer in New York for a number of years, I've encountered people from a huge range of countries with a wide range of jobs, including investment bankers and asylum seekers, retired real estate agents and university students, homemakers and unemployed auto mechanics. Although bound by a shared interest in (many of them would say need for) improving English, ESL classes draw a wide variety of experiences and backgrounds. Second, rather than focusing my efforts on one institution, I recruited from ESL programs in different parts of the city that catered to different nationalities, levels of English and economic classes, further expanding the diversity of my participants. So although my project skews towards transnational newcomers who, for whatever reason, make the time for ESL programs, they are nonetheless a highly diverse group.

In terms of methodological ethics, I am aware that my position as an ESL volunteer inhered a certain binary of authority and privilege. To some extent, it is impossible to abolish power relationships between researcher and researched (Ahmed, 2000; Kouritzin, 2009, p. 79; Saukko, 2003, p. 158) in that the very act of research always introduces an observational, utilitarian element into relationships between interviewer and interviewee, observer and observed. In doing this work, I sought to minimize inequalities of power; throughout my volunteer work, I insisted on being called by my first name; I emphasized to participants the difference between my role as a volunteer and my work as a researcher; I attempted whenever possible to be a resource[11] for participants (and others I met in my volunteer work) about

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[11] Being an information resource for participants would arguably be problematic, or at least circular, if I were strictly studying information *resources* rather than *practices*. In other words, if I were studying information needs of participants in order, for example, to construct a typology of information grounds (e.g. Fisher et al., 2004) or gaps between sources and needs (e.g. Caidi & Allard, 2005), my own intervention as a

English, New York or acclimation to U.S. culture. None of my ESL work involved getting paid; I believe the dynamics between myself and participants would be much different had I been a paid employee rather than a volunteer. Most transnational folk who use ESL programs are aware that volunteers are unpaid and a common question during initial meetings with a conversation partner is to ask why volunteers choose to spend their time teaching ESL without pay. I tried to take advantage of this moment to explain my background as a longtime volunteer, but also as a student and social science researcher with interests in transnational experience in New York. This established a research frame for future interactions rather than attempting to revise my relationship with ESL members after knowing them for an extended period of time. All of these factors contributed to a reflexive awareness on my part as to my obligations (as a researcher as well as a volunteer) to participants.

Research Tools

To identify transnational information practices used to become familiar with urban space, I relied on in-depth interactions with participants in order to understand their everyday lives, and the interpretive work required to make sense of the socio-cultural structures enmeshed in their social worlds. In order to gain a holistic and complex understanding of participants' everyday information practices, I combined conversational interviews, participatory mapping and participatory wandering,

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source of information could be construed as problematic in that the researcher then acts as a source of information rather than documenting or analyzing those sources. As an interpretive project that makes no claims towards causality between information practices and, for example, degrees of familiarity with the city, I do not feel this to be a substantive limitation of my work. And in any case, as a librarian, it would have been all but impossible for me personally or professionally to deny information requested of me in order to preserve a notion of analysis somehow free from personal intervention.

repeated when possible over the course of several months. See Table 2 for a summary

of contact with participants in terms of interviews, maps and wandering (all dates in

2012).

Research Procedures					
Name	Date of Interview #1	Map?	Date of Interview #2	Map?	Date of wandering
Amelie	5/22	X	9/4		5/26
Araceli	5/21	X			
Cecille	3/12	X	4/27		
Ishmael	4/5	X	5/15		5/31
Julio	3/22				
Jorge	3/30	X			
Juan	9/5	X			
Kiki	2/29	X			
Lalo	5/24	X	8/29	X	
Laura	4/27	X			5/28
Luka	2/2				
Miao	2/24	X	5/18	X	3/1
Midori	2/1	X			2/18
Nalan	3/19	X			4/6
Noely	5/27	X	9/15	X	5/21
Raul	4/19	X			
Rob	5/15	X	9/10	X	5/15

Table 2: All dates 2012.

Conversational interviews. In order to gain complex, multi-faceted accounts of participants' everyday lives, I used conversational interviews, also called unstructured or ethnographic interviewing. One goal of conversational interviews is to allow for maximum flexibility, and there is an expectation that "interview questions will change over time, and each new interview builds on those already done, expanding information that was picked up previously, moving in new directions, and seeking elucidations and elaborations from various participants" (Patton, 2002, p. 342). These features are apparent in Girard's (1998) description of interviews in her study with de Certeau on the everyday life of Parisians:

> To become familiar with the gestures of every day in all their hidden details, we thought of collecting … long interviews built on a rather flexible schema in order to allow comparisons without obtaining stereotyped responses. We hoped to see confidence appear in the dialogue so that certain things would be on the tips of their tongues, memories, fears, reticences, everything that usually remains unsaid about knacks for doing things, decisions, and feelings that silently preside at the accomplishment of everyday practices. (p. xxviii)

Conversational interviews are intended to be iterative, freeform and even somewhat improvised. Patton emphasized the utility of using conversational interviews repeatedly when possible, and interestingly, Girard referenced an (unfulfilled) desire on behalf of both researchers and participants to have conducted second interviews in order to return to ideas raised during initial conversations that could have been developed further (pp. 161 – 162). With these considerations in mind, I took a longitudinal approach by using repeated conversational interviews with participants over the course of several months.

Conversational interviews require developing key themes to be used as guidelines (See Appendix 4 for a table of interview themes). Although some variation in the direction of these themes is expected, returning to them with rigor and

attention throughout the course of the research project mitigated the issue of inconsistency between interviews, and in fact lead to a more complex, less constrained mode of inquiry. Initial interviews typically lasted between one and two hours. Most interviews were conducted in English; some were conducted in a combination of English and Spanish. During interviews, I focused on several themes related to becoming familiar with city space. Often by the time I'd arranged an interview, I already knew at least a little about where participants were from, the neighborhood in which they lived in New York and how long they'd been in the city. I typically began interviews by asking participants to describe their first few days in New York City. In particular, I dwelt on moments of surprise and experiences of lostness (loosely based on the critical incident technique (See Flanagan, 1954)) in order to draw out expectations versus lived realities of New York urban life, as well as specific experiences of unfamiliarity in city space. I also asked participants to describe locating the ESL program through which we'd met, and to talk about finding apartments. These threads of conversation, along with discussions of grocery store preferences, were useful in identifying information practices related to a specific task, such as finding information about neighborhoods or locating a particular food or dish. I also asked about means of keeping in touch with family and friends in participants' countries of origin as a means of opening up discussions of ICTs, and social media in particular. As interviews progressed, I learned that asking participants about advice they would give to other transnational newcomers in New York was a good way of opening up moments of vulnerability in city life while allowing participants some narrative distance.

Follow-up interviews were typically a little shorter (ranging from 30 to 60 minutes) and focused on whether or not participants had learned new things about New York (the answer was always yes), important resources for learning about the city and tools for keeping in touch with family and friends abroad. During follow-up interviews, I repeated questions from initial conversations, in order to track differences that may have emerged (knowingly or not) over time, such as references to favorite neighborhoods, means of community or preferences in grocery stores. All interviews were recorded and transcribed by hand. I also made a point of saving emails and texts from participants, which sometimes provided useful documentations of wanting information about, for example, speaking English or the U.S. culture.

Limitations of conversational interviews. There are limitations to conversational interviews as a technique. Conversational interviews risk becoming so informal as to obscure the fact that the interaction is rooted in research objectives. This risk was arguably compounded by the longitudinal nature of my project. As I came to know participants over the course of several months, we often became quite friendly. I've been invited to birthday parties and to meet family, given advice on resumes and online dating, exchanged recipes and in one case, a participant allowed me to store belongings at her house when I was between apartments. Some of these interactions were directly useful for better understanding transnational experience in New York, others were simply the result of getting to know people over the course of time. In terms of separating my volunteer work from my research work from informal, friendly interactions, I made a point of explicitly setting aside time for interviews, as opposed to incorporating interview questions into casual interactions. As well, I found that physical tools of research (the recorder, notebooks, pencils and paper) were

useful in signifying the status of our interaction as being research based. This should not suggest that stiff boundaries between interviews, volunteering and hanging out were possible, or in fact desirable – throughout the research process, I was constantly in the process of developing an understanding of transnational experience, which is inevitably shaped by getting to know people over time and in a variety of settings. Nevertheless, I made every effort to set aside interviews as distinctly research oriented.

As well, the open, evolving nature of conversational interviews can lead to a lack of consistency across participants. Balancing these constraints requires the researcher to situate herself reflexively as conducting scholarly research. As such, I wrote memos immediately after each interview, including questions I'd asked and their order, taking notes on any questions that provided particularly productive, difficult or surprising. Consulting these notes prior to follow-up interviews was useful in tailoring questions for the same participant, but I also made sure to review memos across the participant pool when conducting new interviews as a way of adjusting the order of conversational themes or adding new themes. This process of documentation and reflection lent an overall cohesion to interviews even as their exact structure shifted from participant to participant.

Participatory mapping. As part of the conversational interview process, participants were asked to draw maps of their neighborhoods. Participatory mapping (also called cognitive mapping (Vertesi, 2008, p. 13) or mental mapping (Milgram, 1976)) is used to understand the relationships between people and city space. As part of their investigation of how people living with AIDS conceive of their neighborhoods, Singer, Stopka, Siano, Springer, Barton, et al. (2000), asked participants to

create a map of their community … participants [were] encouraged to include in the map any elements they consider relevant and important. Desirable elements–such as homes, local resources, community networks, boundaries and barriers to health care–and the spatial relationships between these elements are elucidated through discussion and probing during the mapping process. (p. 1050)

For this project, I asked participants to draw maps of their neighborhoods on blank paper with colored pencils. When I was able to interview participants more than once, I often asked them to draw new maps at each subsequent interview (on multiple occasions, this was not possible because the interview location did not lend itself to drawing maps). Lefebvre (1967/2007) has argued that city space should not be read as texts but as textured (p. 222). Asking participants to create maps of their neighborhoods provides a textured tangibility to understanding everyday information practices used to make sense of city spaces. As Vertesi (2008) described, "asking people to draw an object they work with produces not only remarkable and unique images, but also rich stories about the images as they evolve and develop under their pens" (p. 13). To analyze maps, I drew on existing research using similar methods from a variety of disciplines, including HCI (e.g. Bentley et al. 2012), STS (e.g. Vertesi, 2008) and urban studies (e.g. Lynch, 1960; Milgram, 1958). I was primarily interested in using maps as means of understanding how urban space is perceived by transnational newcomers (influenced by but not following the exact methods of Lynch (1960)). In the course of conducting interviews, I found that maps were also useful in elucidating perceived boundaries between neighborhoods and characterizations of a given neighborhood. All maps are reproduced in Appendix 1.

Participatory Wandering. To gain a (literally) grounded perspective on everyday process of learning about urban environments from the migrational, I asked

a subset[12] of participants to take me on walks through their neighborhoods. Kelleher (2004) employed a similar strategy in his ethnographic narrative of localized memory in Northern Ireland, using guided tours of a neighborhood to understand different perceptions among Catholic and Irish residents in terms of specific political and religious landmarks. Within research on urban mobility, researchers have documented everyday flows of pedestrians (Hampton & Gupta, 2008; Maeda, Sato, Konishi, et al. 2005), bikes (Asad & LeDantec, 2013; Larsen & El-Geneidy, 2011) and cars (Mitchell, Borroni-Bird & Burns, 2010). My use of this research approach involved asking participants to take me to places they had referenced in interviews and then letting walks through the neighborhood unfold. For example, I went grocery shopping in Chinatown with Miao, biked through Bedford Stuyvesant (commonly called Bed Stuy) with Rob, went for coffee with Nalan in Astoria and visited a Midtown mosque with Ishmael. These walks were unscripted and took anywhere from one to three hours. I also went on unescorted walks through neighborhoods depicted on participants' maps, in which I attempted to locate landmarks using only the maps drawn during interviews. Figure 3 provides details of these walks.

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[12] This subset was determined largely in terms of logistical issues of being able to arrange a neighborhood visit, but also in terms of wanting to visit a wide range of the city.

Participatory Wandering

Midori
2/18

Nalan
4/6

Ishmael
5/31

Laura
5/28

Miao, 3/1

Rob
5/15

Noely
5/21

Amelie
5/26

Fig. 2: All dates 2012. Pink lines denote routes of unaccompanied walks, and blue lines indicate routes of accompanied walks. Blue pushpins are used to mark sites where I volunteered at ESL programs.
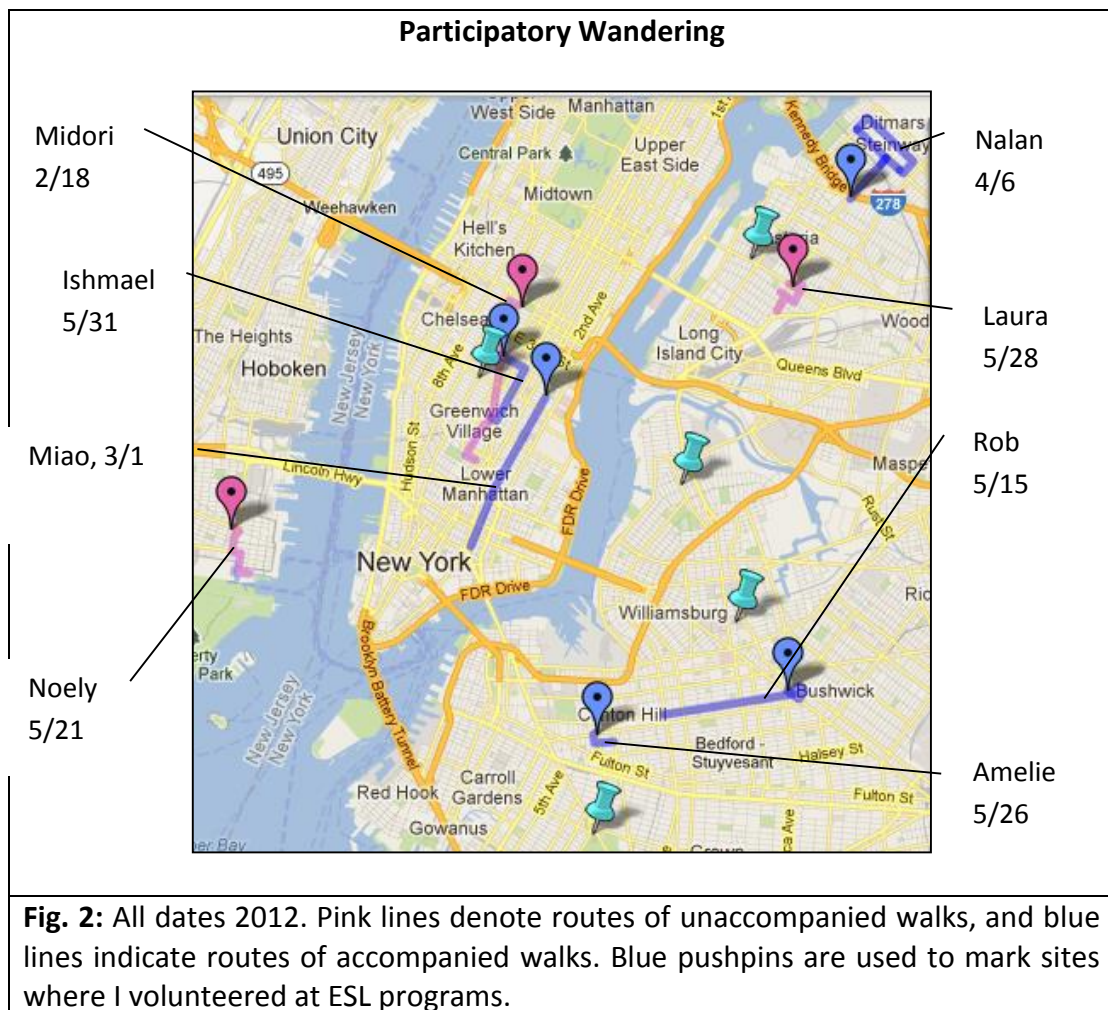
For both accompanied and unaccompanied walks, I documented neighborhood visits with notes and photographs. These walks, which I call participatory wandering, provide an additional layer of depth and analysis in understanding the processes for constructing knowledge of urban space. Drawing on Lynch's (1960) terms, participatory wandering is intended to allow the researcher first-hand understanding of city imageability from the perspective of transnational migrants. Photographs from participatory wandering are reproduced in Appendix 2.

Analysis

Between October, 2011 and September 2012, I conducted interviews with 18 transnational newcomers from 17 countries, as described above and in Tables 1 and 2. Of these participants, 16 drew maps of their neighborhoods. Seven participants took me on walks (or in once instance, a bike ride) through New York City neighborhoods that were important in their everyday lives. In addition to these interactions, I occasionally draw on interviews and participatory maps conducted for a pilot study of my dissertation research (Lingel, 2011) and on interviews from a project with Heewon Kim (Kim & Lingel, 2012) investigating use of locative media like Facebook check-in and foursquare among international students.

Interview transcripts were coded using NVIVO software. Following Miles and Huberman (2007), I used an emic/etic coding strategy, which involves creating a series of high-level codes corresponding to themes identified prior to coding (space, time, social networks and technology) and nesting subcategories underneath that emerged in participants' own terms. For example, under the high-level code "time", I came to include codes such as advice (giving advice to other transnational migrants about moving or the city); comparisons (references to comparing New York to other cities in the U.S. as well as abroad); habit (developing practices that contrast with pre-migration practices, such as creating grocery store lists with Google Translate); preparation (referring to tasks and research needed to move to New York); return (going back to one's city of origin); and surprise (used to note mentions of surprise – and disappointment – with New York). Some of these codes were transferred almost directly into the structure for my findings, while others cut across a number of areas of analysis. As well, an open coding method (Corbin & Strauss, 2008, p. 58) was

employed to create a set of free codes which could then be brought into the emic/etic hierarchy of codes. Out of this coding approach, a number of themes emerged, which eventually grew into focal points for organizing findings.

Limitations and Scope

By choosing to include multiple layers of inquiry (repeated interviews, participatory maps, participatory wandering) I anticipated gathering a rich set of data, and by recruiting a diverse group of participants, I intentionally drew together a wide range of experiences and viewpoints. This richness and breadth does not, however, mean that my data allow me to make claims about transnational migrants writ large, in New York or elsewhere. Moreover, although I've construed the heterogeneity of participants as a methodological and conceptual advantage (for identifying points of convergence across a range of experiences and perspectives), this diversity also dilutes the representativeness of my data for any particular sub-group of transnationals. Qualitative investigations of transnationalism almost always center on a particular nationality because it allows for a depth of engagement in tackling issues of national identity and cultural affinity as they play out in experiences of migration, for example, intergenerational tensions among first and second generation immigrants (e.g. Lew, 2004) or perceptions of national identity in the media (e.g. Kim, 2008). By contrast, immigration studies research that deals with a range of nationalities tends to be quantitative (e.g. Hirschman, Kasinitz, & DeWind, 1999; Waldinger, 2001), using surveys and demographic statistics as a way of comparing and contrasting different immigrant populations. The former approach allows for deep engagement within a narrow scope, and the latter allows for analysis across groups of immigrants, categorized by nationality.

In contrast, the data I've gathered can neither speak to a specific nationality nor to transnational migrants more broadly. The fundamental point of inclusion for this project is newness in city space, where interviewing transnational folk who had moved to New York in the past two years offered a means of drawing together participants with precisely this subject position of newness. I draw on work related to globalization, transnationalism and immigration studies because they speak to participants' experiences moving to New York from another country, and because transnationalism has important consequences for how everyday urban life is experienced in terms of information and technology. But as a whole, the primary objective of this investigation centers on experiences of newness in city space rather than transnationalism, and the accounts of everyday life gathered in this project are intended to open up inquiry into practices of familiarization in urban surroundings, relationships to city space, and flows of information across social, geographic and technological borders.

Chapter 3: Transnational Urban Informatics: Spatial Practices of Familiarization

As newcomers to New York City, participants developed a number of practices for getting to know new urban space. The central objective of this chapter is to investigate familiarization with city space in terms of specific practices of information and technology. After addressing existing literature on information behavior in urban settings, I engage literature from immigration studies on experiences of urban acculturation, identifying key gaps in thinking about the role of technology and information in the process of becoming familiar with city space. The findings section first provides analysis of participants' practices for becoming familiar with their surroundings as embedded in everyday routines. For many participants, developing habits for everyday urban life unfolded as a deliberate response to experiences of lostness, provoking shifts and alterations in how participants moved through city space. I then turn to an analysis of wandering, which emerged as an information practice used by participants to become familiar with their neighborhoods. I build on my discussion of wandering by contrasting the use of slow, un-directed walks through city space as a deliberate attempt to accumulate information, with the use of online maps, which participants characterized as efficiency-driven and rooted in a particular task (e.g. finding a location).

As mentioned in the introductory chapter, HIB research on transnationalism is typically bound by two methodological choices: first, in investigations that concentrate on the library as an institution that provides information resources to transnational migrants; the second focuses on the information practices of a single nationality. In this chapter, I offer analysis that is more holistic on both counts; rather than focusing on the extent to which libraries are meeting the information needs of a

transnational population, I analyze information practices that emerged from experiences of being new in city space, gathering complex and diverse accounts of the many practices and sources used to become familiar with a new environment. As well, the heterogeneity of my participants allows me to talk about these practices and technologies across backgrounds and experiences, placing an emphasis on the shared experience of newness rather than a particular nationality.

My discussion of participants' practices for navigating city space is not intended to speak solely to experiences of those who arrived in New York from other countries, thus excluding people who move to the city from other parts of the country. The practices that I discuss in this chapter almost certainly have crossover with newcomer experiences from people who move to New York from within the U.S., and even people moving from one part of the city to another. Neither do I have a methodological approach that enables me to make generalizations about transnationals in urban space (writ broadly) or newcomers more generally. My objective is to use participants' accounts as a qualitative investigation of how people become familiar with city space in terms of identifiable information practices in a way that can also help make sense of relationships to technology in everyday life. On a more theoretical level, I'm interested in using participant accounts of information practices to point out some conceptual shifts in how the "everyday" as a concept plays out in LIS theory, and to contest some of the dominant trends in urban policy pertaining to technology – themes to which I return in the concluding chapter of this dissertation.

Prior Work: HIB and Urban Space

My investigation of everyday urban life for transnational newcomers takes place in the midst of a larger, cross-disciplinary interest in urbanization. Within LIS research specific to urban environments is largely rooted in investigations of urban libraries[13], such as Agosto and Hughes-Hassel's (2005; 2006) work on everyday life information practices of urban teens, Fisher, Durrance and Bouch Hinton's (2004) research on immigrants' use of public libraries in Queens, New York and Fenster-Sparber's (2008) work on teen reading in a juvenile detention center in New York. These and similar projects situate information practices as deeply related to issues of race and class, where the information needs of urban youth are best understood as contextualized by socio-economic realities of city life. Similarly focused on urban youth, but with the more specific frame of street literature, Morris (2010, 2011) has depicted the ways in which (urban) racial identity can shape relationships to fiction genres. Across these investigations, city life acts as a driver of what shapes information needs and reading practices, but the library acts as a focal point of information resources.

In terms of qualitative investigations of city space within LIS, Agada's (1999) work on gatekeepers in inner-city Milwaukee proved influential in encouraging work on non-dominant groups, some of which has focused on city life (e.g. Caidi & Allard, 2005; Caidi, Allard & Quirke, 2010; Cheong, 2007; Fisher, Durrance & Bouch Hinton, 2004; Johnson, 2007; Savolainen, 2007; Spink & Cole, 2001; Veinot, 2009). Like many of these investigations of urban informatics, my project addresses the ways in which realities of urban life can shape information needs and practices. By gathering

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[13] From a professional rather than academic standpoint, see Urban Librarians Unite, formed in 2010 (urbanlibrariansunite.org).

accounts of transnational newcomers, I look at urban space as an objective of information practices, in that participants actively and continually sought out information about New York, and also as a set of structural components that impact how information practices take shape. Of LIS research that addresses getting to know city space, much of the research has in fact focused on transnational experience, for example Caidi and MacDonald's work on Arab-Canadians in Toronto (2008), and Fisher, Durrance and Bouch Hinton's (2004) work on immigrants in Queens, New York, referenced earlier. In contrast to these projects, I focus on experiences of city newcomers rather than people who have resided in the city for an extended period – most of the studies listed above do not delineate between these subject positions in any meaningful way. My approach also differs from investigations that focus on transnational experiences within a single nationality or ethnic group. Instead, I draw out themes and practices that emerged across interviews as a means of unpacking experiences of newness in city space in the context of information and technology. As such, key questions guiding this chapter include:

- What information practices do newcomers use to become familiar with city space?

- What is the role of technology, particularly mobile technology, in terms of affordances and obstacles of getting to know a new city?

In identifying and analyzing information practices of transnational newcomers in new urban spaces, my objective is both to gain a clearer understanding of how newcomers make sense of city space and to analyze the range of technologies deployed in those processes of familiarization.

Findings

In terms of how newcomers make sense of city space as a process that unfolds over time, participants in this study talked about reshaping everyday processes and tinkering with routines in order to become familiar with new urban environments. In order to show both the everydayness of these practices and their intentionality, I divide my analysis of information practices into two sections: the use of habit in getting to know city space and wandering as a distinct practice of familiarization. The section on habit first introduces a specific reading of habit as an organizational practice, where participant accounts inform a concept of habits as a coping strategy in response to experiences of lostness. Rather than a specific information practice, habit becomes a frame for drawing together information practices that are deliberately built into everyday routines as a means of becoming familiar with the city. I then turn to participants' references to wandering, described by participants as a pleasurable way of learning about neighborhoods. This division should not imply a strict separation between these themes, given that participants often referenced wandering as part of everyday routine. In both sections, my objective is to gain a holistic understanding of the role of technology in everyday urban life.

Theoretical framework: Habits and everyday life information practices. Participants described movements through the city across a number of contexts, but habit emerged from interviews as deeply connected to deliberate efforts to become familiar with urban space. Participants didn't necessarily refer to these practices using the word habit, often using instead terms like "routine" or "developed" or "now I always..." These terms and phrases share an emphasis on deliberately altering how one moves through city space in a way that gathers information and generates a sense of adeptness and competence. In grouping together a number of practices under the

label habit[14], I use a specific reading of Bergson's (1911/1929) work on memory and duration. Bergson argued that "the bodily memory, made up of the sum of the sensori-motor systems *organized by habit*, is then a quasi-instantaneous memory to which the true memory of the past serves as base" (p. 132, emphasis mine). In this definition, habit becomes a deliberate intervention of moving through space in a manner intended to organize one's surroundings. Habit is cumulative for Bergson, in that experiences of time consist in sensorial, bodily interactions with one's surroundings that are compiled into a single system of remembered movements. In the trajectory I'm constructing, habits form through repeated (bodily) interactions with the same (or similar) space. Habits are useful as a lens for thinking of information practices as deliberate and intentional. Using habit as a way of granting agency to individuals engaged in everyday processes of familiarization informs a broader discussion of the role of agency in HIB theory, a subject I take up more fully in the concluding discussion of this dissertation.

Information habits and everyday urban life. For transnational newcomers I interviewed, a typical cycle for developing information habits related to becoming

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[14] By focusing on habits, however, I am effectively bounding off the information practices considered here. An alternate emphasis would take a task-based approach to understanding, for example, the process of finding an apartment or locating information on health practitioners, some of which has already been addressed in HIB research. (e.g. Amit & Riss, 2007; Courtright, 2005; Jensen, 2002; Prock, 2003; Su & Conaway, 1995). An HIB analysis of habits is warranted partly because it emerged from interviews as a useful way of understanding practices in everyday life, and also because it speaks to a gap in HIB research. Fisher et al. (2005) draw on Harris and Dewdney's (1994) work on people's tendencies towards particular information practices as habits, but their analysis (like much HIB work – see Budd (2013) and Case (2012)) focuses on locating information resources rather than identifying information practices. The sub-discipline that concentrates most closely on this area of study is personal information management, but again, the majority of this work concentrates on academics and professionals (e.g. Oh, 2013).

familiar with urban space begins in a moment of lostness, provoking deliberate measures to avoid similar incidents in the future. The complexity of urban space lead newcomers to craft practices for the negotiation of space in deliberate and routinized ways; As Holmes (2001) has pointed out, "the more difficult it is to make sense of the physical world, the more an imperative exists for the routinization or institutionalization of the practicing of place" (p. 8). As newcomers, participants were faced with the task of rendering their surroundings manageable, and many referenced habitual practices of learning about the city. For example, Noely (32, Venezuela) described getting lost on Port Authority Trans-Hudson (PATH), one of the public transit systems operating between New York and New Jersey: "I thought wow, you need to pay attention, because some cars, you can see the sequence of the stops, but some cars, [you can't]. And now I always try to take a seat near the window to figure out the stops." From a moment of lostness, Noely developed a habit of situating herself on PATH trains in such a way as to avoid future experiences of unfamiliarity. Her practice is a distinctly embodied means of (literally) positioning herself in such a way as to gain information about transportation.

Noely's habit of arranging herself on a train in order to gather subway information was echoed in other accounts of routinized information practices. Asked to describe a time when she had been lost in New York, a pilot study participant (24, Korea) described needing directions in the street and looking for people with smart phones to ask for assistance: "whenever I ask a route, I saw who have iphone. They use their iphone and they teach me." In this case, making decisions about whom to ask for help was based not on shared ethnicity, age or gender (although these factors likely played a role) but on gaining access to the Internet. The participant went on to

clarify that she had used this practice on multiple occasions, using personal Internet access as a sorting mechanism of asking for advice. Kiki (32, Japan) described using Google translator to locate words in English in the particular context of having been repeatedly frustrated at grocery stores in New York because she was unfamiliar with the English names of certain foods. For Kiki, using Google translator became a regular part of preparation for going to the grocery store, largely because she disliked having to ask for help from strangers and because she wanted to avoid repeated trips to the store as a result of not being able to locate items she needed. These practices are informational in that they hinge on having information to complete a task, but they are also habitual, in that participants situate daily practices and interactions in order to avoid lostness, to mitigate urban chaos of through routinization and practicing of place.

Habits, information and technology. Habits for avoiding lostness in city space were often deeply tied to technology, and participants often struggled to imagine daily navigations of New York without technological assistance. For example, although Julio (60, Dominican Republic) professed a distrust of technology and consumerism (at one point commenting dismissively, "the young people like to buy the latest [iphone] because they like … fashion, they like to show everybody") he loved using map-based apps on his ipod, to the extent that his family had nicknamed the devise his "third hand." For Julio, the affordances of navigating city space with his ipod were myriad: "I check everything, I say, okay, let me check the time, let me check the radio, let me check the route. I have developed a case of using it a lot … when I need to go somewhere, even if sometimes I've been there, if I'm confused about [something], let me take out the ipod and see." Julio uses his ipod as a watch, a radio and a map, all of

which are assembled into his project of getting to know city space. This process is one that unfolds slowly, and in stating, "I have developed a case of using it a lot," Julio alludes to familiarity with urban space as a longitudinal process in which habits are developed over time. In terms of technology, Julio's ipod becomes at once a source of information and, to return to an earlier quote from Bergson, part of "a single system of movement and sensations."

One benefit of conducting research over the course of several months is the ability to track changes in information practices over time. For example, Rob (28, Puerto Rico) had been in New York for less than a year at the time of our first interview, and I met with him several over the next six months. Although raised in Puerto Rico, Rob was the third generation in his family to have lived in the city; his mother was raised in New York but returned to Puerto Rico before Rob was born. Rob's employment history in New York was highly varied (in less than a year, he had been employed in five different jobs, none for more than a few months): ice cream truck driver, bike messenger, cupcake delivery person. The delivery-based nature of Rob's work meant that navigating space took on an added layer of urgency, in that many of his jobs included financial incentives for moving through the city as quickly as possible. I discuss Rob's information practices in some length as insightful in understanding the ways in which habit and technological use shift and alter over time.

Rob's descriptions of coping with experiences of lostness reflect a shifting relationship to technology over time. After initially stating that he never got lost in New York City, we eventually circled back to the topic of lostness, at which point Rob admitted, "No, I used to get lost, or call my friend, my roommate. I mean, that was at first, the first months. Just called him and tell him to look up on GPS, on the computer.

Like Google maps, if he was at home, and just to tell me where to go." Here, Rob describes his pre-smart phone information practices, in which he essentially cobbled together a technological assemblage (combining his phone, his roommate, and his roommate's computer) for coping with specific instances of being lost, but also as part of a larger project of learning about city space.

Rob's movements through city space produced a number of technological practices that coalesce around building up a sense of familiarity, as well as avoiding lostness. When I asked how he thought his mother or grandfather had moved through the city without the technologies that Rob found so helpful, like Google maps and smart phones, Rob responded, "I don't know. Asking a lot. That's how I get to places I don't know as well. Asking … You just have to ask at least two people. And if they tell you the same thing you know it's right." Rob went on to explain that after several frustrating experiences of being led astray by initial requests for directions, he developed a habit of asking at least two people for advice and then selecting a route. Note that although Rob's approach to asking strangers for directions differs from the pilot study account of selecting people to ask based on access to an iphone, both accounts are framed in terms of repetition and intentionality. This process of fact-checking shows a trajectory of habit, where (en)countering lostness draws together technologies of movement (biking) and communication (with strangers) that comes to be replaced by increasingly sophisticated practices.

About 18 months into his stay in New York, I emailed Rob to follow up with him on his habits for moving through space, asking specifically about how a smart phone had changed his experiences of navigating city space (spelling and grammar are reproduced directly from his email):

> Well if I had a smartphone the first time i got to NY I think it would've helped me get to places faster and avoid stress, but the fact that I had learn the hard way definitely helped me know the city very well in a short time. Working driving around every day a fucking huge truck in midtown, being new in the city, getting lost, etc. gets you a lot of information in your brain just like technology devices. Is just a different experience in navigating NYC. But you're still learning. The art of asking people, cops and workers is still on in the 21st century and is as effective as a smart phone. But I think since this technology came up, we prefer it cuz is easier living. Having a smart phone is an advantage of course, but is cheating if you're intentions are to know the city i guess. It might not necessarily be "better" to have a smart phone is just a tool. But if you just want to get there ASAP, go for the smart phone.

By referring to "learning the hard way" and "the art" of asking for information, Rob's description of familiarity requires experimentation, repetition and deliberation. It's important in Rob's account to note that these disparate information practices may contribute to the same goal of familiarity, but are not necessarily equal in terms of perceived legitimacy. For Rob, legitimacy hinges on internalized knowledge of city space, which helps explain his dedication to biking as a tool of familiarization, as well as his willingness to develop habits of asking city strangers for directions. Capturing different relationships to technology across Rob's process of becoming familiar with city space demonstrates a trajectory of shifting information-based habits, where practices that initially emerged as ad hoc (asking multiple people, calling a friend with immediate Internet access) are eventually deployed as habits, with different affordances of learning city space quickly versus slowly, or (to draw on Rob's terms) legitimately versus by cheating.

Across these accounts, habit takes place through a shared trajectory that cycles through lostness, followed by developing habits for familiarization with the city. By examining these information practices through the lens of habit, two connotations of the term "practice" arise: familiarity as a practical set of objectives and the repetitive practice needed to learn about the city. Habits are deeply pragmatic for

participants, rooted in avoiding lostness and feeling comfortable in city space. Habits were also articulated as taking shape within routines of everyday life, where repetition of information practices was often necessary to test their efficacy. As well, repetition and routine produce a sense of familiarity and adeptness with the city. Both the pragmatism and the deliberation at work in these accounts of familiarization point to the salience of habit as an analytical lens of information practices and everyday life.

Wandering as a practice of familiarity. In earlier research (Lingel, 2011), I briefly discussed wandering as a useful means of becoming familiar with city space, arguing that participants in that study had "devised a form of acquiring information about their neighborhoods completely outside of established information grounds, using informal, unstructured walks to acquire a kind of personal fluency in their neighborhoods" ("Wandering as an information practice," para. 1). I develop the construct of wandering more fully here; although not necessarily referenced specifically as "wandering," the use of non-directed walks in order to learn about city space surfaced repeatedly in interviews. More specifically, participants described wandering as pleasurable, and (related to the preceding analysis of habit) as a practice embedded in everyday routines. Participants also described a sense of ambivalence surrounding different kinds of technology involved in learning about city space, setting up a comparison between wandering and the use of online maps. As an information practice, wandering opens up a line of inquiry into a progress narrative of technology (privileging efficiency and speed) and the role of technology in city infrastructure.

The pleasures of wandering. For most participants, wandering meant walking. In contrast to the dirt and smelliness typically associated with the subways[15] and confusion that surrounds buses, participants frequently described walking through the city as highly pleasurable. For example, Raul (22, Honduras) commented: "I love to walk, sometimes I don't like to use the subway, I prefer to walk. Walking you can see more, more details." This was seconded by Julio (60, Dominican Republic), the most avid wanderer I interviewed: "This is my hobby, to walk. I like to use it, to walk. Because I just enjoy the environment, to see some neighborhood environment[s]. It's very fresh for your memory, because when you're walking to some place, it's so boring to see the same house, the same people, the same neighborhood." Julio's wandering had taken him all throughout his neighborhood of Bushwick and surrounding areas in Brooklyn, and he had furthermore expanded into Queens and Manhattan, almost entirely on foot. Julio knew other Dominicans in the New York area, but did not feel comfortably enmeshed in these networks. Unemployed but unwilling to consider himself retired, Julio's wandering achieved at least three goals: occupying his free time[16]; familiarizing himself with the neighborhoods near his house; and converting

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[15] A rare point of unanimity among participants was a sort of rueful disgust for the city's subways, which they characterized as dirty, smelly and rat infested. ("They are mutant rats!" insisted one participant in the pilot study.) Although the city's subways system is undeniably dirty in comparison to a system like Washington D.C. or Tokyo, I suspect that this critique is slightly more complicated than a simple dislike of dirt (or mutant rats), and that commenting on the MTA's dirtiness is one of few criticisms one can levy against the city without necessarily marking oneself as an outsider. It is, in effect, a safe insult to lodge when talking about New York.

[16] It's also important to note that there are certain class connotations that potentially surround wandering. Wandering is a financially free way of learning about space, although there are certainly costs of time. At the same time, the undirected, leisurely pace of wandering may lead city natives to label this practice as something more sinister and less welcome, like loitering. Determining whether someone's presence in a particular space is welcome or threatening, legitimate or illegitimate is very much tied to perceptions of socio-economic status (see Ahmed, 2001). I discuss issues of

that familiarity into information he could share with others. Regarding the latter, Julio recounted an incident in which he referred his relatives to an outlet shopping center in New Jersey, including information how to travel there by bus, all of which he gleaned from reading flyers left on a bus. In Julio's recounting, being able to provide information was a particularly satisfying contribution because it was shared with people who had been living in the city longer than he had. This incident reflects an always-on monitoring of potential information while moving through city space. On the whole, Julio's movements were often directionless but nonetheless informational. As he moved through the city he reproduced information about it, sometimes manifest explicitly in communicating with others, sometimes manifest more implicitly, in feeling more connected to, and aware of, city space.

Wandering and routine. Related to my earlier analysis of habit, wandering was described as an activity that could be integrated into the routine of daily urban life, as referenced by Ishmael (42, Togo): "Like when I am going to the mosque, I walk a little bit after the mosque, instead of the bus, I can take time to walk a little bit and become familiar with the area." A devout Muslim, Ishmael attended prayer throughout his day, requiring him to have a working knowledge of mosques in a variety of locations, which he located through word-of-mouth information gathering. And in fact when wandering with Ishmael, we first went to prayers at mosque in Midtown and then wandered through the surrounding neighborhood. In talking about various New York neighborhoods, Ishmael tended to punctuate descriptions in terms of whether he had visited mosques nearby. This was also borne out in the participatory map he drew (see

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social practices as a means of defining space – particularly in terms of ethnicity and nationality - in the next chapter.

Figure 4). For Ishmael, mosques are a central feature of organizing city space, and his wandering spirals outward from these landmarks as a deliberate means of familiarization with New York.
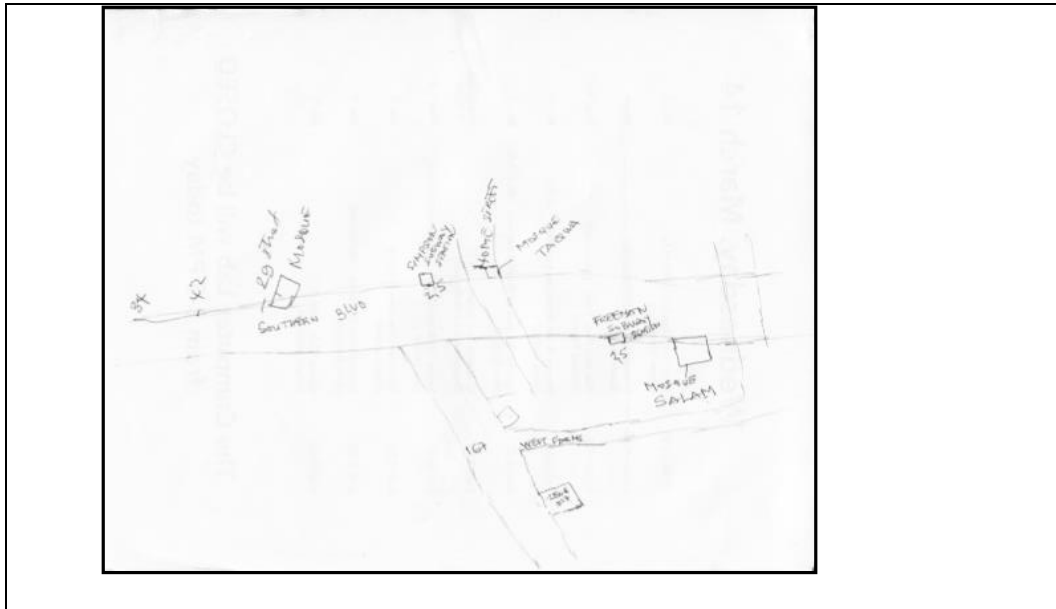
Fig. 3: Ishmael's map of the South Bronx. Note the multiple mosques depicted, which reflect his need to have a working knowledge of mosques close to key locations in his everyday life, including his house (depicted here), but during interviews he also listed a number of mosques close to his house and where he volunteered. Wandering enabled Ishmael to build this knowledge of places to worship, which themselves turned into resources of both producing and receiving information.

Embedding wandering into daily routine is also evident in Midori's (36, Japan) account of mixing up her commute from the East Village to Midtown. As a post-doctoral fellow at New York University who eventually intended to return to her native Japan, Midori was aware that her time in New York was limited, and taking brief detours on her route home offered a way of learning about city space. In describing how she chose which streets to take from Midtown to New York University, Midori responded: "Broadway is, I think, a shortcut, most shortcut way because it's not straight but [makes diagonal hand gesture]. But sometimes I change streets because I can find new restaurants or a new place." For Midori, brief detours along her commute

were useful in breaking up a monotonous commute, but also in finding new things; she cited finding a new grocery store and new restaurant as a result of straying from her usual route on her walk home. Incidentally, this resonates with Jacobs' (1961) arguments that heterogeneous businesses and short city blocks breaks up monotonous urban landscapes and encourage interaction on city streets (p. 101).
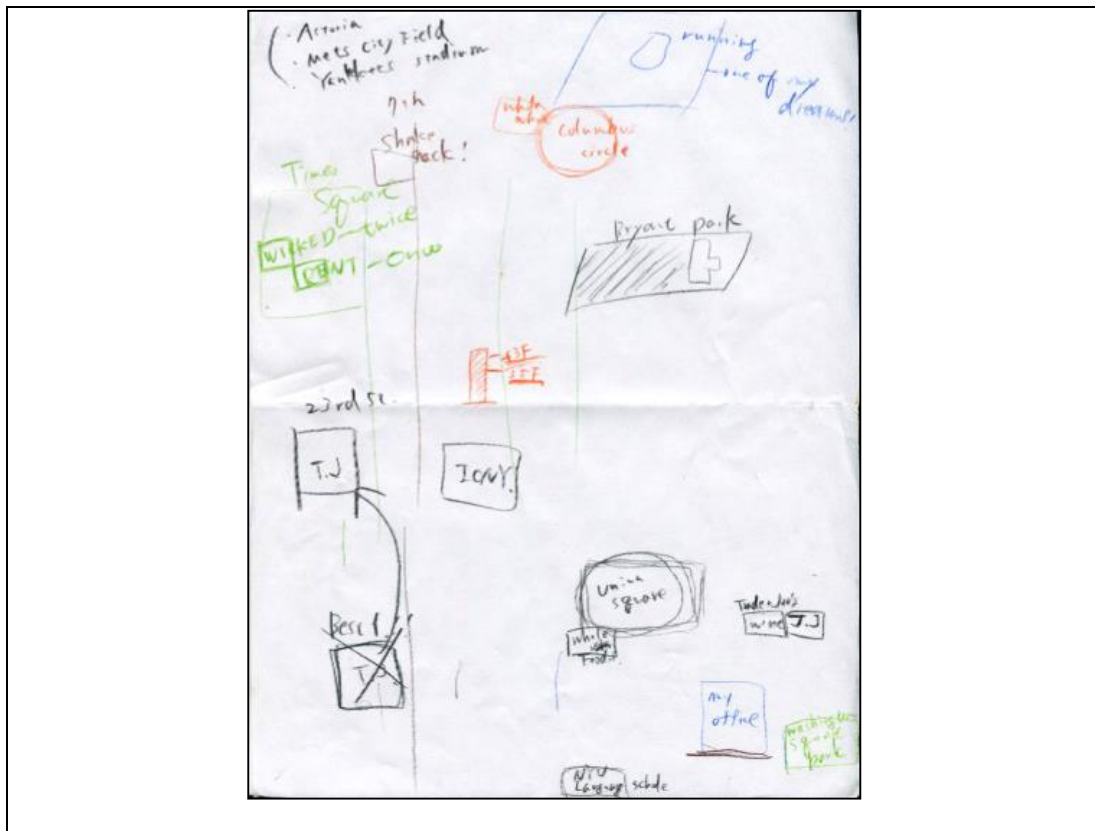
Fig. 4: Midori's map shows key landmarks along her route home, including Bryant Park, Union Square, Trader Joe's and her office at NYU. Reiterating her reluctance to leave Manhattan, Midori listed in the upper left hand corner of her hap places she'd visited in the outer boroughs – Mets Stadium and Astoria in Queens, and Yankee stadium in the Bronx. Midori's map was unusual in that it privileges landmarks over streets – as I discuss more thoroughly in the next chapter, most participants begin drawing maps with streets on which they live, and then proceed to include landmarks like work and grocery stores.

Midori's wandering was fairly confined – she rarely left Manhattan and considered some neighborhoods (particularly Harlem) too dangerous to visit. Spatial concentration can set up a possible composition fallacy when expanding qualities of

one neighborhood to the city of a whole. As I replicated Midori's commute south along Broadway on my own, I was struck by a comment Midori had made that New York lacked a sizeable Japanese community: "When I came here, I heard that there were many, many East Asians. But I couldn't see many Japanese. Koreans, Chinese – very, very many, they have a big population. And they have Korean Streets and Chinatown, but no Japanese street or town. So I am very disappointed at that." Walking south on Broadway from Bryant Park, I realized that it took me directly through Koreatown, which is jam packed with Korean restaurants, banks people and language (see Figure 5).

Fig. 5: Taken in Koreatown while replicating Midori's commute. Note that businesses, signs and advertisements are written in Korean, which I argue contributes to Midori's sense that New York lacks an active Japanese community, in contrast to Koreatown and Chinatown.

Although it is true that New York has larger populations of Koreans and Chinese as compared to Japanese (NYC Census Fact Finder, 2012), Midori's perception of the city as lacking Japanese community takes shape in a specific geographic vicinity with a highly-visible Korean community. Midori's construction of New York City space is shaped by her (limited) movements through it, even though within those confines, her wandering had produced new information about her neighborhood.

Seeming to speak directly against confined wandering practices like Midori's, Jorge (29, Spain) provided a lucid and forceful justification for practices of wandering not only through a neighborhood, but through New York as a whole: "I like the Upper West Side, but I hate the people who live in the Upper West Side and they say, 'Oh, I'm not going to Queens, I'm not going to Brooklyn.' This so, so awful, I mean, you are losing things, [it's] like [saying] 'I don't read books.' It's the same." Partly, Jorge is tapping into an irredentist resentment that privileges Manhattan over the outer boroughs, but he also conceptualizes New York City as a collection of neighborhoods to encounter, or in Lefebvre's (1967/2007) terms of text(ure)s to be read. Wandering can thus be considered an information practice that scales – on a very granular level, wandering produces new awareness of city space, even city space that is frequently encountered. On a larger scale, wandering represents a willingness to explore entirely unfamiliar neighborhoods or boroughs. In both cases, wandering functions as a deliberate but undirected process of monitoring that fits into daily routines and produces understanding of the city on a highly granular, individualized level.

Non-pedestrian modes of wandering. *W*andering was also an important means of familiarization for those who bike. Rob (28, Puerto Rico) participates in bike activism in New York City and also uses his bike for his delivery jobs. Although Rob described

those jobs as useful for getting to know Manhattan, his familiarity with Brooklyn and Queens relied on wandering. In asking how he decided where to bike when getting to know these areas, he responded: "You don't decide [where to go] that's the thing. You just ride, bike. And meet people. And they know places you don't know, people you don't know, spots you don't know. Then you get to know New York, the different spots, different lifestyles." Rob's comments demonstrate the extent to which wandering consists of more than simply moving through space, and furthermore involves encounters between people that foster discussion in and about space. Put another way, it would be inadequate to think of Rob's experiences of wandering solely in spatial terms, they must also be read socially in terms of interpersonal interactions.

Earlier I contrasted Midori's practice of localized wandering with Jorge's advocating city-wide wandering. A similar division emerged between Rob and Lalo (35, Chile), the other avid cyclist I interviewed. Lalo described biking as "one of the things that I like most in this neighborhood, and the sight, the landscape, it's amazing." Lalo was visibly enthused when talking about biking, and he described himself as a highly-dedicated cyclist, preferring it as a form of transportation, as evidenced by the statement, "No, I don't know the trains … Buses, I didn't take buses." On pressing Lalo about where he rode his bike, it quickly became apparent that Lalo's biking was fairly confined; Lalo had lived in New York for four months at the time of our first interview, but even at our second interview three months later, it turned out that Lalo had never taken his bike over the Brooklyn, Manhattan or Queensborough Bridges, only the Williamsburg Bride, closest to his Greenpoint apartment. This localization was borne out when I asked Lalo about his favorite neighborhood in New York:

> Lalo: For me now, it's Brooklyn, because I live in Brooklyn. It's very interesting. I don't know Queens. It's huge also. Brooklyn, yes. For now.

JFL: Where in Brooklyn do you like?
Lalo: I don't know all Brooklyn, actually. I know just Williamsburg and Greenpoint. For now, I like this place.

Although both Rob and Lalo described biking as a tool of wandering, the scale of their wandering differs vastly. Partly this is because Lalo had been in the city for a shorter period of time, and his job working as a mechanic did not require mobility in the same way as Rob's delivery work. Moreover, in contrast to Rob's participation in bike activist work and what he described as a community of affinity with other cyclists, Lalo biked alone ("No, I am a selfish man" was Lalo's response when I asked if he biked with others), which likely contributes to his relatively limited knowledge of city space. Lalo and Rob both took pleasure in biking as a means of wandering through city space, but the degree to which they use wandering to sightsee on the level of neighborhoods (like Lalo) versus boroughs (Like Rob) points to the scalability of wandering as a practice, as well as the inter-relatedness of social interaction and spatial mobility.

Wandering and technological ambivalence. Across the accounts I've just described, wandering is pleasurable, purposeful, often routinized and, critically, information based. For example, wandering is explicitly rooted in locating information in Jorge's (29, Spain) account, which he described as filling a gap in information resources about where he lived: "It's hard to get information about my neighborhood online. We just walk around." Jorge's description is striking in its rejection of sophisticated technology for arguably one of the most low-tech of practices. This echoes a thread that some participants voiced that a reliance on technology provided short term convenience but over the long term resulted in diminished knowledge of city space. In this section, I address the role of technology in practices of wandering as a means of opening up a wider discussion of technology and urban life. As Bull (2001)

argued in his work on the use of portable CD players in city space[17], everyday urban life is shot through with technology, so much so that it is impossible to divorce people, mobility and tools. I'm particularly interested in a contrast that emerged from interviews between wandering as a time-consuming but pleasurable versus the use of online maps as time-saving yet spatially desensitizing.

Technologies that accompany wandering are not always digital. For example, Amelie (France, 27) used paper maps to navigate the city. When asked to give advice to city newcomers, Amelie advocated wandering: "When the weather is good, just take your shoes and walk, everywhere." Having been in the city for just two weeks at the time of this interview, Amelie was comfortable with wandering on foot in a way that she wasn't yet with buses or subways. Accompanying Amelie on a walk through her neighborhood, she used a fold-out map from a guidebook to orient herself, and in noting how little time the process took for her, it seemed that she used this method quite often. In asking Amelie about differences between getting around New York and Paris, her city of residence for the three years prior to moving to New York, she said that in Paris she also used a paper map. She explicitly contrasted this to using a smart phone, explaining, "my friends say you don't need maps [in Paris] because we have iphones. But I don't have an iphone." Asked about the advantages she thought an iphone might offer, Amelie shrugged. "It is not necessary for me in Paris. I think it is also not necessary here." Without a smart phone, Amelie's method of finding directions for places was largely ad hoc – she used her guidebook (which included neighborhood maps as well as a subway map) and (before leaving her apartment) the

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[17] For a more recent investigation of mobile music devices in urban spaces that builds on Bull's (2001) work, see Beer (2010).

MTA website to plan trips. Interviewing Amelie four months later, her practices had changed very little, although predictably, she reported needing the maps less because she was familiar with more neighborhoods. She also used a paper planner to keep track of upcoming events that she'd gleaned from regular perusal of blogs, online calendars and magazines. Amelie wandered in New York with the aid of technologies, but her use of paper maps and calendars were no less central to her spatial mobility for being physical rather than digital.

Wandering versus navigating: Familiarity and efficiency. Amelie's low-tech approach for becoming familiar with city space can be contrasted with Noely's use of online maps as tools of navigation. Setting up a comparison between practices of wandering and practices of online navigation provides useful insights into the complicated role of technology in learning about new urban environments.

In our initial interview, Noely (32, Venezuela) made frequent references to her dependence on her Blackberry's access to Google Maps for getting around New York City. As an illustrative example, I had to change the location of my second interview with Noely on very short notice after realizing the café where I'd arranged to meet was closed. I texted Noely with a new location two blocks away, to which Noely texted in response, "Waooo, ok dejame cambiar las coordenadas a mi GPS" ("Wow, okay, let me change the coordinates on my GPS," my translation). Google maps was so integrated into Noely's movements through the city that rather than ask around on the street (or simply calling me to ask for directions) Noely opted to consult her "GPS," by which she meant her Google maps app. During our interview, I asked Noely to imagine what navigating the city without her Blackberry would be like and she replied with visible alarm, "But Jessi, this is impossible. Google maps, if I don't have Google

Maps it would be impossible, I couldn't move without Google maps." Even Noely's phrasing of her dependence[18] on Google Maps underscores my earlier emphasis on the importance of movement, both in terms of the link between feeling familiar with city space and feeling adept at people able to move, and the extent to which movement is bound up in the technological as well as the informational.

Months later I was able to observe Noely's sense of immobility in a more concrete way - having switched from a Blackberry to an iphone, Noely's method of navigation was disrupted by a recent upgrade that rendered her tools of navigation suddenly[19] unfamiliar. Noely expressed frustration at attempting to navigate either New York City or Jersey City, where she had lived with her husband for about a year. As if to underscore Noely's difficulties moving around city space, she was unable to take me to a coffee shop during a visit to Jersey City because the changes to her smart phone rendered her unable to find even the name of the café (in light of the difficulty of locating Noely's favorite independent coffee shop, it is perhaps ironically fitting that we wound up going to Starbucks). Practically reading my thoughts, Noely commented to me, "See? Without Google Maps, I cannot move, it is impossible." She went on to declare, half-jokingly, that she intended to buy a compass until she figured out her iphone. Noely went on to muse that although she loved Google Maps and felt much more confident moving through the city (and New York in particular) knowing she

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[18] Online maps represent only one affordance of smart phones, and participants expressed a deep attachment to their phones outside of map functionality. Expressing a typical attachment to her phone, Araceli (29, Mexico) stated, "I can't imagine my life without the iphone. Because I think it is very easy to use [the] iphone. I love that I can have everything here, I can see everywhere, I have my email, I can study, I can listen [to] music or English. If I'm bor[ed], I can play or I can type in something in the Internet."

[19] Noely was by no means alone in her frustration with the iphone switch from Google maps to its own digital mapping system - See Covert (2012).

could turn to Google Maps for navigational help, she also realized that it had kept her from internalizing information about her surroundings.

Noely's experiences with digital maps were not unique among transnational newcomers I interviewed. For example, in research with Heewon Kim (Kim & Lingel, 2012), we found a tendency to contrast the immediacy of navigation through online maps with a long-term sense of loss in terms of getting to know the city in a deeply personal way. As Dinan (30, India) explained:

> I think [tools like Yelp are] really helpful because I don't have so much time to walk around to find places. But the negative part of it is, because I know that I can just quickly find out a place, I'm looking down on my phone and walking, so I look on my phone a lot more than looking around the city. I am just looking on the screen … I might pass some places that I could have found, but I just miss them. That's the biggest negative point that I look at my phone a lot more than looking around, so [I have] less experience [with] the city. So in terms of quantity of places that I can find, I think Yelp helps, but in terms of quality of places, I guess it's sort of better without Yelp because I've been to so many places so far, but I found only three or four that I like and keep going back to them … I wish I use [Yelp] less, because it's just the easy way out, and I don't walk around, I just became interested in saving time.

Dinan's comments sets up a contrast between "walking around" as a slow but potentially deep engagement with city space, and the efficient but superficial interaction with urban surroundings that characterizes using digital maps. Extending this divide to a consideration of human information behavior, wandering allows for social interactions as well as spatial familiarity, whereas digital maps support efficient *navigation of* but not *interaction with* city space.

The ambivalence surrounding technology in transnationals' accounts of moving through urban environments yields insight into the benefits as well as the disadvantages of digital maps as tools of navigation. Online maps offer guidance in efficiently moving from one part of the city (and one business) to another, rather than an individual trajectory through urban space that allows for whims, improvisation and

play. Whereas wandering is characterized as informational, leisurely and pleasurable, using online maps is described as alienating, efficiency-driven and desensitizing. This contrast does not fall along neat technological lines – wandering frequently involves a range of technologies, including the use of online maps. Yet in this study, participants describe wandering as movement *with* rather than *subject to* maps.

Conclusions

Qualitative analysis of everyday life for transnational newcomers to New York provides insight into familiarization with city space as operationalized through a deliberate crafting of information practices, some of which could in fact be called information habits. Everyday life for newcomers involves getting to know city space in a process that is frequently messy and non-linear. Wandering fits within a frame of habits, as a tactic[20] that was typically described as part of everyday routines and also intended to become familiar with urban surroundings. These practices vary in their technological sophistication, incorporating navigational tools that range from printed guidebooks to smartphones equipped with mapping applications. The range of technologies described by participants opened up analysis of how the use of tools like online maps can affect relationships to space, where interviews suggested tensions related to tradeoffs between short term convenience and long term familiarity with city space. This tension suggests another facet of the messiness of getting to know a city, where familiarity is a process that builds over time, leveraging a range of technologies that can alternately assist and hinder the acquisition of spatial fluency.

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[20] Interestingly, Manovich (2008) explicitly links wandering to de Certeau's construct of tactics: "The ways an individual is moving through the city, taking shortcuts, wandering aimlessly, navigating through favorite routes and adopting others are tactics. In other words, an individual can't physically reorganize the city but she can adopt itself to her needs by choosing how she moves through it (p. 36-37)."

Rather than a steady progression of building knowledge in a highly methodical way, participants tended to describe familiarity in terms of fits, starts and occasional missteps. Yet as a process, spatial familiarity is not without organizational logic, as indicated by references to habit. For Bergson (1911/1929) habit provided a frame for understanding memory in terms of accumulation and movement. In interviews, habits surfaced in the context of avoiding lostness, or as a way of deliberately situating oneself vis-à-vis surrounding stimulations. These alterations of how one moved through space offered a means of countering lostness, in that information habits provided a means of organizing urban stimulations, structures and messiness into navigable, informational space. In terms of how these dynamics of habits and agency play out in the larger context of HIB, the construct of information habits straddles a line between approaches to HIB that emphasize information as circulating within a given environment or site (e.g. Chatman, 1999; Pettigrew, 1998, 1999; Praeger & Burnett, 2010) and cogntivist, task-based approaches that concentrate on the actions needed to achieve a particular outcome (e.g. Belkin, Kulthau). My analysis of transnational newcomers learning about city space points to a need for HIB theory that can accommodate both agency and social context. By couching references to habit in terms of lostness, participants conveyed the importance of autonomy and deliberateness at work in learning about city space. At the same time, wandering demonstrates how participants leveraged their surroundings to feed the accumulation of information about a given urban environment. I expand on the contributions of this analysis of habits in the concluding chapter of this dissertation.

Chapter 4: Newcomer Relationships to Space: Imageability and Social Norms

Newcomer experiences of learning about urban surroundings include changing relationships to space. These relationships can be tracked both in terms of physical features identified as salient and useful descriptors of the city (what Lynch (1960) would call imageability) and the social practices that take shape within specific segments, zones and neighborhoods. I begin this chapter with a discussion of how streets and neighborhoods are conceptualized in urban studies scholarship, which informs analysis of newcomer relationships to city space. Using the construct of imageability, I analyze participatory maps as a way of accessing how city surroundings were perceived by transnational newcomers in this study. In particular, maps demonstrated a preference for including landmarks of navigation over personal connection, and were depicted on a very small scale. This presented a marked contrast from much of the existing urban studies work that uses participatory maps to identify resources or sites of personal attachment and engagement. For some participants, social practices and localized norms of behavior were the most useful means of relating to a particular part of the city as a neighborhood. Given that participants all had experiences of transnational migration, ethnic enclaves, which have long been of interest to scholars of urban transnationalism, surfaced as an important means of understanding and connecting to city space. In particular, a tradeoff surfaced between connecting to a neighborhood through identification with shared cultural practices at the potential expense of feeling connected to the city as a whole. From these accounts, I return to conceptualizations of streets and neighborhoods, using experiences of transnational newcomers to articulate the salience of neighborhoods as a means of organizing and relating to city space.

I draw heavily on participatory maps in this chapter as a means of understanding perceptions of city space, particularly streets and neighborhoods. At the same time, one contribution of this chapter is to reflect on participatory mapping as a methodological tool that is not necessarily limited to identifying local resources (e.g. Singer et al., 2000) or contesting dominant narratives of a neighborhood through comparisons with individual neighborhoods (e.g. Gieseking, in press; See also de Certeau, 1984), but about how space is perceived differently in terms of a particular subject position, in this case newness. Newcomer maps in this study differed in many ways from some of the conventional literature on participatory maps, in that navigation trumped personal attachment as an ethic of inclusion for depicting landmarks. My analysis thus looks at participatory maps as indications of how newcomers relate to space, which contrasts with the use of participatory mapping as a methodology for understanding how space is represented.

A second contribution of this chapter is the examination of relationships to ethnic enclaves, or neighborhoods in which a specific nationality is recognizable dominant both socially and industrially (Portes & Stepick, 1993), among a heterogeneous population of transnational newcomers. Much of the work in cultural geography, immigration studies and urban studies that relates to ethnic enclaves concentrates on a specific nationality (e.g. Cravey, 2003; Ehrkamp, 2005, 2008; Kim, 2008; Levitt, 2000; Lew, 2004; Staeheli & Nagel, 2006), and within LIS, a methodological emphasis on a specific nationality has been used to identify information resources within a specific ethnic enclave that facilitate settlement (e.g. Caidi & Allard, 2008; Quirke, 2008). In my investigation, ethnic enclaves emerged across interviews as a source of feeling connected to a specific segment of the city, in

contrast to experiences of lostness and alienation that could emerge in other neighborhoods (as discussed in the previous chapter). At the same time, many participants voiced a sense of wariness related to over-identification with or only getting to know an ethnic enclave at the expense of connecting (socially and spatially) with the city at large. This tension allows me to connect to overarching questions in urban studies of the function of neighborhoods, particularly in terms of social practices as a means of organizing and relating to city space.

Theoretical Frames: Streets, Neighborhoods, Imageability

To develop an analysis of newcomer relationships to city space, I draw on literature from urban studies, cultural geography and immigration studies, focusing on constructs of streets and neighborhoods. Because participant accounts tended to talk about city space on a small scale and from a street-level view, working through uses of streets and neighborhoods provides a vocabulary for analyzing relationships to space. As well, given that participants in my study are transnational migrants, I hone in on theories that relate to immigration – specifically ethnic enclaves – setting up my own analysis in conversation with these discourses of transnationalism and urban space.

Conceptualizations of streets. An early and influential formulation of urban streets comes from Simmel (1905/1967), who argued that everyday life on city streets require that a "person resists being leveled down and worn out by life" (p. 47). For Simmel, cities present a constant barrage of technologies, industry and cultural diversity, resulting in an inured sense of detachment, or what he called the blasé. These tensions of maintaining a sense of individuality in the midst of institutional structures and norms are particularly useful in addressing experiences of newcomers,

who are in the initial process of confronting urban infrastructure. After urban studies had begun to establish itself as a discipline, Jacobs (1961) took an urban policy approach, focusing on the importance of the street as a site of interaction, movement and contact. Arguably, Jacobs' most strident argument was to advocate diversifying urban space in terms of commercial, ethnic and aesthetic make up. Jacobs' work inspired other urban studies thinkers, for whom the most productive unit of urban analysis is the street. As Tonkiss (2005) noted in her text on critical theory of urban architecture, "the street, as the simplest form of public space in the city, is more complex than it looks. These everyday public spaces are subject to different uses and meanings: they are means and media of getting about, meeting places or places to hang around in, forums of visibility and display, sites of protest" (p. 69). Also interested in theorizing city space in terms of social practices, Ahmed (2000) has written extensively on the extent to which city streets provide sites of conflict between natives and newcomers, where the street becomes a site of surveillance and monitoring. These interpersonal tensions help frame participants' accounts of moving through city space and being aware of (and learning to become fluent in) social practices based in street-level interactions.

Conceptualizations of city neighborhoods. Early urban studies research used neighborhoods to conceptualize city space in terms of discrete units in order to analyze differences in structure, character and demographics. For example, Park (1925/1969) noted the extent to which neighborhoods take on the characteristics of their population, writing "each separate part of the city is inevitably stained with the peculiar sentiment of its population. The effect of this is to convert what was at first a mere geographical expression into a neighborhood, that is to say, a locality with

sentiments, traditions and a history of its own" (p. 95). Neighborhoods in this analysis become a means of demarcating not only space, but the social norms that emerge around a particular population. This emphasis on social norms as deeply tied to neighborhood space is echoed by Jacobs (1960), although on the whole, she is somewhat suspicious of viewing neighborhoods as a source of community. For Jacobs, "the conception of neighborhood in cities is meaningless – so long as we think of neighborhoods as being self-contained units to any significant degree," (p. 117), where the exceptions for thinking of neighborhoods as useful are first, in the capacity for drawing assistance from larger bodies of government and second, "to weave webs of public surveillance and thus to protect strangers as well as themselves; to grow networks of small-scale, everyday public life and thus of trust and social control; and to help assimilate children into reasonably responsible and tolerant city life" (p. 119). For Jacobs, neighborhoods offer a means of drawing governmental support, as well as establishing mechanisms of collective social control. Spatial boundaries thus provide a way of articulating social boundaries, where residents can make determinations of inclusion based on adherence to spatial norms.

Ethnic enclaves and neighborhood space. The coextensive relationship between the behavioral norms of a specific population and the actual structures and forms of city space have frequently been framed in terms of transnationalism. For example, in the field of critical geography, Cravey (2003) studied Latino immigrants in North Carolina, arguing that migrational individuals construct a "parallel universe" (or a neighborhood within a neighborhood) largely invisible to native residents (p. 604). Ehrkamp (2005, 2008) examined Turkish and Kurdish immigrant neighborhoods in Germany, focusing on practices of consumption that shape public space (2005), and

the ways that public space comes to be labeled as exclusively ethnic in ways that demonstrate both race and gender based tensions (2008). Staeheli and Nagel (2006) used interviews with Arab-American activists to understand the social, cultural and spatial topography of relationships and social networks spanning home and host spaces, where concepts of home and citizenship were shifting, complicated, nuanced and ambivalent (p. 1612). These theorists share an interest in how migrational populations reshape (literally as well as figuratively) urban space, where socio-economic tensions of globalization take shape at the level of neighborhoods.

In immigration studies literature, the term ethnic enclaves has been used to describe neighborhoods dominated by a single ethnicity or nationality. A key facet of ethnic enclaves is that economic as well as social ties are forged predominantly (if not solely) along ethnic or nationalist ties – Hasidic Jews in Bed Stuy, Brooklyn and Cubans in Miami are classic examples (Portes & Stepick, 1993). Within immigration studies, ethnic enclaves often have an explicitly economic focus (see Portes & Rumbaut, 2006, p. 51-52), but my analysis focuses on social and cultural practices that can also be a useful means of articulating the boundaries of ethnic enclaves. My methodological approach differs substantively from projects in both cultural geography and ethnic enclaves, which are typically rooted in collective reshaping of neighborhood space. Rather than looking at the affordances of living within a particular ethnic enclave or how existing city space is reshaped through the arrival and acculturation of a specific group of transnational newcomers, I use ethnic enclaves as a way of unpacking relationships between individual participants and the urban spaces they navigate in light of ethnic markers.

Streets, neighborhoods and city imageability. The relationship between streets and neighborhoods is at once obvious and complex; neighborhoods are (partially) comprised of streets, which provide a stage for the display of behaviors and norms that partly define a neighborhood. At the same time, streets form edges between neighborhoods, at times acting as delimiting boundaries, at times acting as linking paths. Deeply interested in the interrelations of streets and neighborhoods, Lynch (1960) conducted a study on the urban landscapes of Boston, Jersey City and Los Angeles, in which he sought to understand how a city's long-term residents think of and move through its shapes, streets and structures. Lynch was concerned predominantly with implications for urban policy and design, but his use of participatory maps yielded observations of residents' relationships to streets and neighborhoods in terms of imageability, which refers to "that quality in a physical object which gives it a high probability of evoking a strong image in any given observer" (p. 9). In the following analysis, I use imageability to analyze features that were alternately personally evocative or functionally navigational. Both capacities of imageability help newcomers make sense of and relate to city neighborhoods.

As a disciplinary synopsis of these various conceptualizations of streets, neighborhoods and city landscapes, in urban studies scholarship there is an emphasis on experiences of residents, often long-term residents (e.g. Lynch, 1960). Meanwhile, cultural geography and immigration studies literature tends to concentrate on transnational experiences of the city as a long-term process of acculturation at the level of community or enclave. In contrast, I report on individual city newcomers whose experiences of getting to know the city can be read in terms of identifying

landmarks as well as social practices. As such, key questions addressed in this chapter include:

- What spatial features emerge when newcomers are asked to describe neighborhood space?

- In what ways are social practices linked to spatial boundaries? What role, if any, does ethnicity and/or nationality play in relating to space via social practices?

Lynch argued that strangers could yield more insight than natives in understanding the process of becoming familiar with city space; similarly, I view urban newcomers as occupying a useful vantage point from which to understand different means of relating to and demarcating urban surroundings according to different organizational logics and narratives.

Findings

I begin this section with analysis of city imageability as described by participants, drawing on both interviews and participatory maps. In particular, participatory maps revealed a tendency to include landmarks of navigation over personal familiarity. As well, the small scale of most maps reflected participants' relationships to space as newcomers with concerns of wayfinding and orientation. In the second half of this findings section, I discuss how participants were highly attuned to the ways in which behavioral norms can indicate spatial divisions. Both in the analysis of imageability and social practices, references to ethnicity and nationality emerged. These complex relationships to space in terms of ethnicity confirm some of the existing literature on urban transnationalism while complicating others.

Perceptions of city space: Issues of navigation and scale. Up to this point, I have intermittently brought in references to maps as a source for analysis of newcomer information practices in urban space. In this section, I draw explicitly on participatory maps as a way of understanding urban imageability among people I interviewed. As such, before proceeding with analysis of how city space was perceived by participants, I describe the process of gathering participatory maps, previously outlined in Chapter Two.

Of 18 participants, 16 drew maps with Julio (60, Dominican Republic) and Luka (28, Georgia) as the exceptions[21]. Two participants drew multiple maps – Lalo (36, Chile) and Miao (32, China). When asking participants to draw maps, I provided blank paper and colored pencils, and asked them to draw maps of their neighborhoods. The cartographic scope of my investigation thus differs from projects that take a city-wide perspective, such as Lynch's (1960) investigation of Boston, Jersey City and Los Angeles, Milgram's (1976) work on Paris, or Vertesi's (2008) study of London. It also differs from a project like Giesking's (in press) work on maps of a college campus, where participants shared a connection to a well-defined location. In my study, participants were asked to draw their neighborhoods (where 18 participants came from 17 neighborhoods) rather than the city at large; maps were intended to provide

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[21] Both participants declined to draw maps when asked, and both because of IRB restrictions and my own attitude towards conducting interviews at participants' discretion, I did not at all pressure them to comply. For Julio, I suspect his resistance was due both to his tenuous legal status (he had long overstayed a tourist visa and he was suspicious of any documentation of his presence in the U.S.) and the likelihood that as a 60 year-old, he found the exercise childish (for methodological comments on the challenges of participatory mapping in terms of anxiety, see Gieseking (in press) and Lingel (2013)). Luka was also uninterested in drawing a map; as I mention in the methods appendix, my interview with Luka was fairly difficult and I sensed that the request to draw a map reached the edge of his interest in participating.

an additional layer of newcomer perspective and impressions of city space, particularly in terms of boundaries, landmarks and navigation. In the following analysis, I start by describing the role of landmarks as used in the majority of participatory maps, where there was a tendency to use landmarks as tools of navigation over personal attachment or intimacy. I then turn to the struggle to draw maps with accurate scale, which I connect to the concept of introverted versus extroverted neighborhoods.

Newcomer landmarks. Across maps, participants tended to include landmarks (e.g. buildings and parks) as tools of orientation rather than as notations of familiarity. I'd expected participants to include landmarks with which they were personally familiar or two which they had some sort of emotional attachment (similar to how participants in Gieseking's (in press) work on relationships to campus among alumni from an all-women's college). Instead, most participants included landmarks as features that could assist others in identifying where they lived, even if landmarks referenced places they have never personally been. For example, Raul drew a hotel where he'd never stayed and Lalo drew a bar although he didn't drink alcohol; both of these landmarks (see Figures 9 and 10) were within a block of where they lived and described as a guide for proximity to home. While drawing his participatory map, Jorge (29, Spain) articulated a series of landmarks to give his rendering context: "A map? Okay. My neighborhood, my neighbors. In the Upper west Side. This is 165. This is the Presbyterian hospital. On Fort Washington … and here, it is Columbus [Circle]. And the A line. This is Columbia. What else?" Like Raul and Lalo, Jorge includes landmarks of general navigation over personal familiarity, and moreover scales up this practice to a

borough-wide level. This tendency emerged even though I didn't contextualize

participatory maps as an exercise intended to guide anyone.
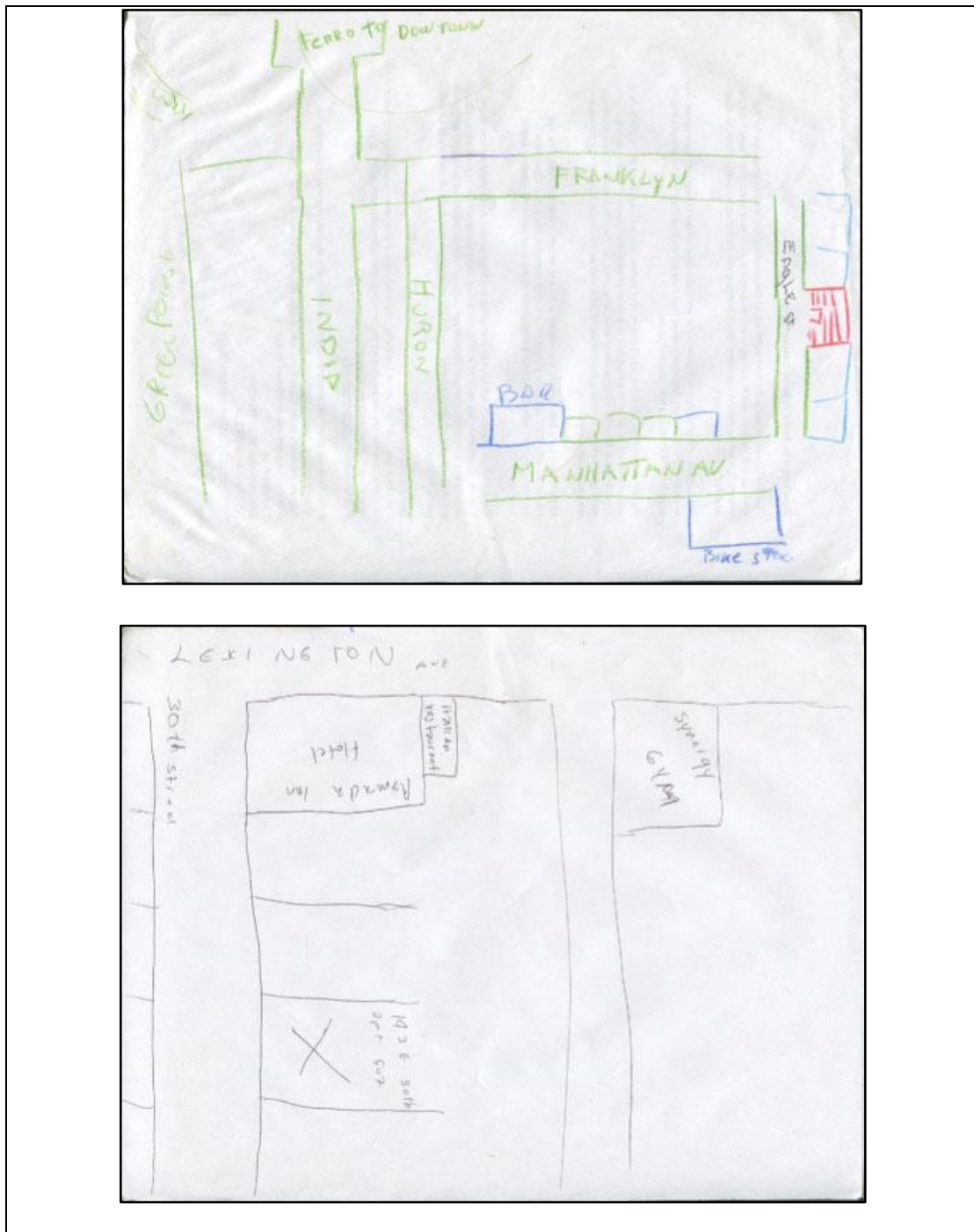
Fig. 6 and 7: Lalo's map is above and Raul's below (note that although Raul lived in Westchester, he opted to draw a map of his first neighborhood in New York because, as he explained "that was real New York." Both maps depict the blocks surrounding where participants lived, although Raul's is on a particularly small scale.

In contrast to the landmarks I've just described as not necessarily being rooted

in daily, routinized use, the most common landmark included in participatory maps

related to public transportation (for a table of landmarks depicted on participatory maps, see table 5). For the majority of participants, public transportation (particularly the subway) was the primary means of intra-city travel, such that these landmarks[22] incorporate daily familiarity. At the same time, although most participants were very familiar with the subway lines near them (Julio, Lalo and Rob were the main exceptions in that all expressed a stated preference for walking or, in the latter two cases, biking), it bears relevance that by including landmarks of public transportation, participatory maps literally provide information on navigating the city. Amelie (27, France) provided an example of how the subway literally structures her sense of space: "I just go outside [the subway car] and choose one direction and if I pick the 21st [St. side] I know at the end of the Street it's Church Avenue, and if I go to Caton avenue, it's Flatbush. But maybe if I go there and I take some turns on my own, I think I will be lost." In this sense even when participatory maps include features of personal experience, they are also expressly navigational. City imageability, for transnational newcomers in this study, is deeply connected to themes of orientation and wayfinding.

| Participatory Map Features	
Feature	#
Public Transportation	10
Grocery	9

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[22] Interestingly, the propensity of transportation-based landmarks was not borne out in Bentley et al.'s (2012) analysis of navigation in Chicago, where public transportation was often not depicted in participatory maps. Whether this is more a factor of the city itself, transnational migration or newness would have to be examined in further research.

	Park	7	
	Restaurant	6	
	School	5	
	Other	5	
	Gym/Yoga	3	
	Laundromat	3	
	Place of worship	3	
	Historic landmark	3	
	Natural features	2	
	Hospital	2	
	Library	1	
	Work	1	

Table 3: The above table lists features depicted on participatory maps. The category "historic landmark" refers to features like the Statue of Liberty or Columbus Circle. Natural features includes rivers and lakes.

Participatory maps and the problem of scale. In addition to the tendency to include landmarks of navigation over personal attachment, participatory maps tended to be drawn on a very small scale. Participants typically began the mapmaking process by drawing a grid, almost always the streets on which they lived. Spiraling out from there, participants began adding additional streets, and then landmarks like those described in the prior section. Participants frequently struggled with issues of scale, to the point that they would remark on the difficulty of being limited in what they were ultimately able to include on their maps, because the initial gridlines locked them into depicting only a few blocks. Although I asked participants to draw a map of their neighborhoods, it would be more accurate to describe the results of their efforts as drawing the vicinity near their houses; most maps were on a very small scale, the smallest being Rob's one-block, street-view drawing. Only six maps depicted more than ten or so blocks of city space, and only two maps depicted large chunks of the city: Midori (36, Japan) included landmarks as far north as Central Park and as far south as New York University, an area of approximately 50 blocks, roughly three miles, and

Jorge (29, Spain) who essentially drew the entirety of Manhattan, from Inwood to Governor's Island. He also included New Jersey, Roosevelt Island and (although only as a bullet point) Astoria in Queens. I include examples of small, medium and large scale maps in Figures 8-10.
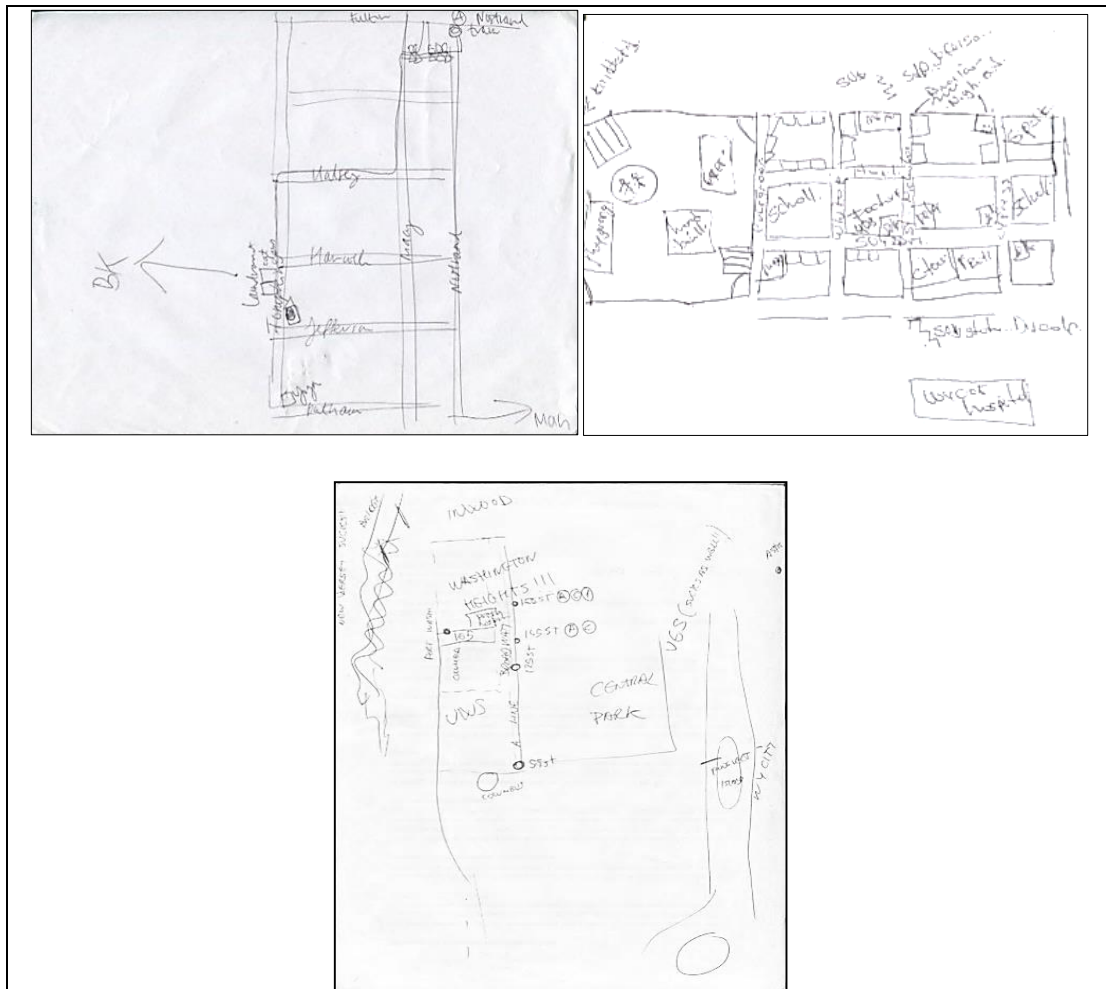
Fig. 8-10: Examples of maps drawn at a small, medium and large scale presented clockwise starting from the top left, by Alice, Juan and Jorge, respectively.

When asked to draw maps of their neighborhoods, participants responded with depictions that were far smaller in scale than what most would likely consider a neighborhood. In part, this likely stems from the fact that participants simply lacked (or felt that they lacked) sufficient information about their neighborhoods to portray them accurately. Maps from some of the most recent arrivals to the city are notably small in scale, like Amelie (27, France) and Miao (34, China), both of whom had been

in the city for just two weeks at the time of my first interview with them. Yet others who had been in the city for over a year (like Alice, Kiki and Raul) also drew small-scale maps, and Miao's second map was almost identical in scale to her first, even though it was months later and she was living in the same apartment. As a feature of participatory maps, small scale also emerged irrespective of neighborhood in the city, implying that structural characteristics of a neighborhood are insufficient to explain the problem of scale.

Difficulties with scale are not unique to newcomers, as demonstrated by the fact that longtime residents in Lynch's (1960) study also sometimes struggled with scale, resulting in maps that lacked definition or collapsed distances between neighborhoods. As a result, "it was as if the map were drawn on an infinitely flexible rubber sheet; directions were twisted, distances stretched or compressed, large forms so changed from their accurate scale projection as to be at first unrecognizable" (p. 87). For newcomers I interviewed, much of the twisting, stretching and compression referenced by Lynch was related to scale. I connect this issue to Lynch's argument that neighborhoods can be "introvert or extrovert" indicating the extent to which a particular section of the city gives directional sense to other neighborhoods. Issues of scale are one manifestation of spatial introversion, in that drawing city space on a very small scale makes it difficult to denote connections to other parts of the city. Moreover, it underscores the fact that the ability to read or demarcate space as introverted or extroverted is partly a function of space itself (some parts of any given city are simply more isolated than others) but also a function of the cartographer's familiarity with space.

In reflecting on key features that emerged in participatory maps – navigational landmarks and small scale – the extent to which imageability and acculturation are intertwined becomes apparent. Having read urban studies literature that leveraged participatory maps to understand city space, I underestimated the extent to which newness would shape depictions of the city. Partly, this is because the mapping prompts was deliberately asking participants to draw neighborhoods, whatever that meant to them. Following Vertesi's (2008) approach of asking participants "draw me London" (or in this case, New York) would likely have resulted in different maps, perhaps drawn with a larger scale. But having acknowledged that my framing of participatory maps contributed to how maps were drawn, it's nonetheless useful to consider maps not as *representations of* space, but as *relationships to* space. Put another way, participatory maps from this project were perhaps less useful as depictions of space and more useful as depictions of a moment in which participants revealed fundamental concerns of newcomers: navigation and orientation, specifically in parts of the city where they lived. In this way, imageability reflects a relationship to the city that is fundamentally linked to navigation, orientation and wayfinding, as suggested by the choices of landmarks that participants included. The small scale of maps parallels this subjectivity connection between newness and navigation, where participants tended to depict city space in terms of streets clustered around their houses rather than entire neighborhoods.

Relating to space: Practices of people. I transition here from an analysis of urban imageability to social practices tied to city space. Cities vary in the extent to which they formalize space into distinct districts (consider, for example, the formality of Paris' districts versus the more nebulous neighborhoods of Toronto) and city

residents may or may not recognize these sanctioned boundaries[23] in everyday life. As Ahmed (2001), de Certeau (1984), Harvey (2000, p. 122-125) and Lefebvre (1967/2008, p. 193) have pointed out, neighborhoods may be dictated by city planners, but they are reproduced and reformulated by the bodies that move through them. Newcomers with whom I spoke recognized and regularly deployed references to conventional boundaries of city space, but they also produced their own means of demarcating assemblages, zones and neighborhoods. In this section, I first address the role of social practice in relating to their urban surroundings, where participants used behaviors and social norms as an organizing principle of space. I then turn to a narrower dynamic of relating to space in terms of shared ethnicity or nationality, pointing out a tension of valuing cultural affinity on the one hand and a city-wide ethic of cosmopolitanism on the other.

     City space and social norms. Participants referenced a number of organizing principles for making sense of city space, including industry (such as the Financial District, or the gallery scene in Chelsea), common architectural features (for example, brownstone apartments in Bedford Stuyvesant and Park Slope) or forms of transportation available, such as whether there were ample bike lanes or subway service. Another means of drawing boundaries around city space, which surfaced repeatedly in interviews, was to focus on the social norms endemic to a particular area. For example, one of the accounts from my work on locative media (Kim & Lingel, 2011) is succinctly illustrative of spatial boundaries based on social practice. Jacinta

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[23] For a journalistic account of how amateur cartographers shape neighborhood boundaries of online maps, see Grynbaum (2012). See also Chisolm and Cohen's (2013) online map (http://hood.theory.org/map.html) detailing how San Francisco residents differ in laying claim to various neighborhood boundaries in the context of advertising apartments on Craigslist.

(33, Mexico) had lived in New York for just under two years at the time I interviewed her, having come to New York from Mexico City for graduate school. Employed in Midtown Manhattan, I asked Jacinta to clarify a reference she'd made to "Midtown Rules":

> Midtown rules are very clear. You know at what time everything is going to be closed, you know that on weekends, no one will be here. You know that everyone's in a hurry, that everything's a grid, you know Grand Central. So if I think in terms of navigating, probably making sense of the [West] Village and downtown took me longer to actually feel comfortable moving around and knowing where I wanted to be. But then again, that's more like Mexico. Mexico is not so orderly. So I love places that aren't so orderly, and I think [transnationals] from Mexico, I think that we're used to that, so we're resourceful, we're good at adapting and figuring things out and moving around in chaos[24], we don't freak out … I don't freak out if streets are not on a grid and things like that. So sometimes, things being so square and clear and 5pm everything's closed, that's harder for me, because then it's so strict. And when things are more chaotic, like Chinatown and stuff, I feel much more comfortable in interactions with people, much, much more comfortable.

Jacinta here disambiguates ease of navigation in space from comfort with things and people in space, between familiarity with space (in terms of how to get around) and space feeling familiar (in terms of how to interact there). Jacinta might understand Midtown, but she feels familiar with the West Village, irrespective of how well she understands it in a strictly navigational sense. Jacinta's observations of Midtown rules draw boundaries in city space that are only partly geographic, and are defined more substantively in terms of social practices and norms. I expand on this link between social practices and demarcating boundaries by turning to a narrower lens of social practices and ethnic enclaves.

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[24] Interestingly, Araceli (29, Mexico) used identical adjectives in comparing Mexico City and New York: "And my city is like very different than New York, like we don't have order on the streets. It's chaos. It is chaos."

Social practices in ethnic enclaves. The extent to which social practices (such as "Midtown Rules") characterize neighborhoods can track quite explicitly along racial or ethnic lines. Perhaps the starkest reference to boundaries of space in terms of race came from Rob (28, Puerto Rico) when I asked him to describe the differences between the three Brooklyn neighborhoods in which he'd lived: "Oh, that's easy. Puerto Ricans live in Bushwick, black people live in Crown Heights and Jews live in Bed Stuy." On a more granular level, and related to reading space in terms of social practices, Nalan (32, Turkey) described her preference for Astoria in terms of shared culture: "Astoria, I like to go there. Astoria, we can find our culture there, you know, the Greek neighborhoods. The Greek and Turkish people they share the same culture, the same food, almost exactly the same food, culture. So we go there so often, we shop there, we go [to] restaurants over there." Cecille (33, Cameroon) also described his preference for living in the Bronx as a matter of cultural familiarity: "That's why I found an apartment in the Bronx. They are all African there. And we have almost the same culture, because if they are from the West part, I am from the Central part of Africa, but all under the same culture." Cecille had lived in eight apartments during his two years in New York, all in the Bronx and Harlem. When I asked about differences between his current neighborhood in the Bronx and his former neighborhoods in Harlem, Cecille spoke of contrasting social practices: 'I was looking for some place to feel comfortable … Like a quiet place, I don't like to have a lot of music … I have no problem with Spanish people, but they are so – they like to play a kind of music, they like dancing, party every day, always, every day. And I got tired of that, you know?" Cecille and Nalan's comments set up divisions of neighborhoods in terms of shared culture, and by extension, socio-cultural practices like playing music on the street and

selling particular kinds of food. In particular, Cecille's comments on "looking for some place to feel comfortable" echo Jacinta's references to rules of space as defined by social practices. These accounts shift ethnic enclaves from their emphasis on economic resources and institutions towards localized social practices. It's interesting to note, moreover, that across all of the examples of relating to space via social practices I've listed, participants extrapolated social practices across a group of nationalities, Latin people for Jacinta, Greeks and Turks for Nalan, and pan-African culture for Cecille. This willingness to scale up characteristics of affinity beyond a single nationality suggest that ethnic enclaves can offer a deep sense of connectivity partly through fluency in specific cultural practices and partly through a more general sense of otherness.

Of transnational newcomers that I interviewed, none lived in neighborhoods formally designated by their nationality, such as Chinatown or Little Italy. Some lived in neighborhoods in which they were part of an ethnic or nationality-based majority, like Cecille (33, Cameroon) and Ishmael (42, Togo), both of whom lived in parts of the Bronx that are home to sizeable populations of transnational migrants from different countries in Africa, and Laura (34, Brazil) who lived in Astoria. Although Astoria is typically constructed as predominantly Greek, it's also home to a small but densely concentrated Brazilian population. Laura noted this national concentration in the process of drawing her participatory map:

> This is Broadway. This is 35th St., I live here, I live in a house here. I usually go to a restaurant here, a Brazilian restaurant very near. This is the store right here, I [mentioned it earlier]. This is the Steinway [stop on the] R … And the other Brazilian restaurant is here – here is the little Brazil of Astoria. Here is the restaurant, here is the grocery store. This is 36th St. and the Church is here. Now let me see. In the corner is a bakery … Every [morning] I buy bread and coffee here. And here are a lot of things, laundry. And in this street, wax and manicure.

In declaring "here is the Little Brazil of Astoria," Laura situates herself in relationship to Astoria, demarking a Brazilian micro-neighborhood within the larger (typically constructed as Greek) population. For Portes and Rumbaut (2005), ethnic enclaves are vital sources of economic resources and cultural affinity, affordances that are borne out in Laura's map, which includes Brazilian-owned businesses that she supports as well as cultural institutions (like her church) that provide important socio-cultural connections. Laura had previously lived in Sunset Park (in Brooklyn) as well as mid-town Manhattan, but had opted to move to Astoria after learning about the neighborhood's Brazilian population from a (Brazilian) friend.

Fig. 11: Laura's participatory map of Little Brazil in Astoria. Laura's map corresponded most closely to literature on participatory mapping that focuses on affective relationships to landmarks (e.g. Gieseking, in press), in that she described each landmarks in terms of her daily interactions with those sites. This is in marked contrast to participants who depicted locations in order to assist with navigation, even if they had never personally visited or patronized the landmarks they'd included.

Laura's experiences in Astoria make for an interesting comparison with Miao's (36, China) relationship to Chinatown. I first interviewed Miao two weeks after her arrival in New York, and going to Chinatown had already become part of her weekly routine: "Chinatown is very convenient for Chinese people. Because there's Chinese food [and businesses]. So it's interesting." The familiarity of products and services in Chinatown was one draw for Miao, as was being able to speak in her native language. Miao's preferences for Chinatown demonstrate some of the most pragmatic benefits associated with ethnic enclaves, where shared nationality enables transnational newcomers to communicate more easily, to support business of other immigrants from the same country, and to reduce concerns of being misled or taken advantage of because they lack local know-how or language skills. Interestingly, Miao's relationship to Chinatown had changed by the time of our second interview, several months later. Miao reported that she rarely went to Chinatown anymore, having found that she could get good deals on produce and other foods at Trader Joe's[25]. This only makes partial sense in terms of where Miao lived – going to Trader Joe's over Chinatown spared her a bus ride, but there are a number of other grocery stores in between her apartment and the nearest Trader Joe's location. To me, it seemed that Miao's

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[25] Miao was not alone in mentioning this shift; Kiki, Jorge, Midori and Raul all referenced switching to Trader Joe's over time, even when it wasn't necessarily all that close to where they lived, suggesting a kind of social capital attached to patronizing the store (which only arrived in New York in 2006). For example, Midori described the cache that Trader Joe's paraphernalia has for her friends in Japan: "Some Japanese know the products of Trader Joe's and they are very interested. When I get the gifts, I give Trader Joe's tote bag as a gift for my Japanese friends. It is just three dollars here." The trajectory of a bag that is likely made in the global south, sold at a chain grocery store in New York City and taken back to Japan as a gift that signals local chic could foster an entire analysis of political economy or media archaeology.

changing relationship to Chinatown was partly a matter of learning more about shopping options in her neighborhood and partly wanting to divest herself from Chinatown as an ethnic enclave. Research on transnational migrants in New York has found that particularly among the children of people who immigrate to the U.S., there is a tendency to distance oneself from too-close an affiliation to ethnicity or nationality, a distancing that is particularly common vis-à-vis ethnic enclaves (Kasinitz et al., 2008; Lew, 2004). Miao's removal from Chinatown had similar overtones over wanting to relate to feel adept at navigating New York (in terms of everyday life tasks like knowing where to buy reasonably-priced food) without needing to rely on ethnic enclaves. Other participants echoed this reluctance to invest too heavily in ethnic enclaves, like Araceli (29, Mexico), who commented "I love Latin culture, but I don't want to live near Latin people."

Contrasting Laura's relationship to Astoria and Miao's with Chinatown reveals the complex relationships between transnational newcomers and ethnic enclaves. Even for participants who ascribed little importance to living in proximity to people from their country of origin, it was possible to identify a neighborhood as populated by a particular nationality through markers of ethnicity that could range from stores and businesses to advertising and graffiti. Ethnic enclaves – zones of the city in which a dense concentration of particular ethnicity or nationality that include economic as well as cultural institutions – were valued for highly pragmatic affordances, like being able to find familiar products and services, as well as benefits that were more abstract but still deeply affective, such as shared culture. Nonetheless, there are risks that come with relying on ethnic enclaves too heavily, where participants expressed some hesitation in seeming to depend on or only be comfortable in ethnic enclaves

associated with their ethnicity or nationality. As a whole, ethnic enclaves were valued as a manifestation of New York City's diversity and as a site of shared social practices, but there were also potential drawbacks in terms of feeling disconnected from the city as a whole.

Conclusions

This chapter has described two approaches to understanding newcomer relationships to space: imageability and social practices. Participatory maps revealed the extent to which newcomer status shapes perceptions of space, reflected both in the small scale at which most maps were drawn and the tendency to include landmarks as tools of navigation rather than markers of personal familiarity. Contrary to what I had expected in light of existing literature on participatory maps and city space, participants strove for objective, task-based depictions of space rather than highly personalized depictions. I read this as indication of the extent to which participatory maps offer a useful tool of understanding relationships to space, as opposed to thinking of maps as representations of space. The role of social practices as a mechanism of relating to space was another theme that emerged from interviews, where participants referenced drawing boundaries around city space in terms of behavior norms exhibited in certain parts of the city. Ethnic enclaves were particularly important as sites where social practices were familiar and provided a sense of ease or intimacy, but newcomers also discussed a risk of overidentifying with a particular neighborhood at the expense of feeling alienated from the city as its own entity.

Participant accounts offer a useful critique of Jacobs' (1960) argument that neighborhoods are unnecessary (or even counterproductive) in city planning because they detract from overarching commitments to the city as a whole). The idea of

reading space in terms of collective norms and practices, and moreover of recognizing those practices as part of a shared culture, emerged across interviews as a powerful narrative of space feeling familiar, legible or accessible. Given these characterizations, what are the embedded implications for why neighborhoods do or do not matter for city newcomers? In particular, how does Jacobs' emphasis on surveillance connect to participants' emphasis on social practices?

Neighborhoods were a vital means of sensemaking for participants I interviewed, and they most often saw the ability to recognize and navigate neighborhoods as a sign of acculturation to the city. Neighborhoods are more than a means of appealing for resources from a larger, institutional body, they are a means of situating oneself within larger systems of organization. This echoes Lynch's (1960) findings on paths and edges between discrete urban zones as indicative of perceived relationships between two (or more) sites. For transnational newcomers with whom I spoke, neighborhoods rooted in cultural affinity were a means of locating spaces of legibility and familiarity, and moreover of compiling the city into a sensible whole and coming to terms with their own newness in city space. Another means of noting the tensions at work in arguments for and against neighborhoods is to think of Jacobs as an advocate of cosmopolitanism, where cities function best when they facilitate socio-cultural heterogeneity, manifest throughout the city rather than concentrated in neighborhoods. New York enjoys a reputation for cosmopolitanism, not least among transnational newcomers in my study, who voiced appreciation for the city's overall acceptance of multi-culturalism (this echoes findings of other projects on transnationalism in New York – see Kasinitz et al. 2008). Simmel (1905/1967) emphasizes the relative power, in urban spaces, of impersonal norms that constrain

individual perceptions and conduct, such that it becomes difficult to feel a sense of connection to or affective relationship with the city as a whole. For transnational newcomers, neighborhoods become a means of mitigating these institutional pulls towards city-level perspectives, instead asserting the value of far more localized relationships to urban space.

Accounts from participants both adhere to and invert the idea of social surveillance as a benefit of neighborhoods. Newcomers are constantly in a process of monitoring the behaviors and norms of their surroundings, typically looking to fit into prescribed behaviors for a given neighborhood (I address behavioral monitoring in terms of tourist versus resident identity work more fully in the next chapter.) This kind of surveillance is largely in line with Jacobs' (1960) assessment, where newcomers become attuned and acculturated to an existing set of norms and rules. At the same time, surveillance also comes into play in the context of ethnic enclaves, where participants identified with a neighborhood based on ethnic or cultural affinity. Accounts from Jacinta, Cecille, Laura and Nalan referenced the use of monitoring and replicating social practices predominant in a given space, which becomes a means of demarcating boundaries and determining belonging. Yet this kind of surveillance in fact reinforces the kind of neighborhood-cum-community that Jacobs rejects. Jacobs has been critiqued for being overly narrow in the kinds of neighborhoods held up as beneficial and desirable (see Abrahams, 2009), downplaying or flat out ignoring the benefits and necessity of enclaves of alterity. Although Jacobs advocated diversity in city streets, this same interest in heterogeneity is at odds with her emphasis on surveillance and maintaining social norms. Accounts from transnational newcomers help resolve this tension, underscoring the extent to which monitoring social behavior

is only partly about replicating dominant norms, and also has an important role to play

in carving out spaces of difference.

Chapter 5: Technology and Identity Work: Online and Offline

Identity work, long a critical discussion in scholarship of both offline and online contexts, is a fundamental part of experiencing newness in city space for transnational newcomers I interviewed. Technology becomes a linchpin in accounts of identity work related to adapting to a new urban environment, making some processes easier (such as keeping in touch with family and friends abroad) while complicating others (as in the balancing act of socio-cultural tensions between place of origin and place of arrival). Technology supports two kinds of identity work in participants' experiences of newness: identity work related to transnationalism and identity work as constructed online. These two sources of shaping and reshaping identity are inter-related, in that ICTs allow newcomers to communicate with social networks abroad, even as these forms of communication can also generate tension in terms of managing conflicting socio-cultural norms, issues of privacy and fatigue of constant self-disclosure. Some of the technological practices that arose in the course of interviews reproduced certain well-documented identity practices, while other practices contest and complicate existing models of how technology and identity intersect.

Rather than focusing on the use of a specific ICT, this chapter analyzes a range of technologies deployed by participants as part of the work of constructing identity as newcomers in New York. This holistic approach offers a useful counterbalance to methodological approaches that seek to section off the use of a particular technology from its material and socio-cultural surroundings; As Miller and Slater (2000) argued in their ethnographic investigation of Trinidadian Internet cafes, "We need to treat media as continuous with and embedded in other social spaces, that they happen within mundane social structures and relations that they may transform but that they

cannot escape into a self-enclosed cyberian apartness" (p. 5). By inquiring into uses of technology in everyday life, I track identity work across both online and offline technologies, noting instances in which technology facilitates transnational migration (as has been documented in much of the existing literature on transnationalism and ICTs, e.g. Bacigalupe, & Cámara, 2012; Komito & Bates, 2011) as well as when technology complicates and ruptures.

I begin by describing the constructs of *identity work, context collapse* and *code-switching*, which are useful in unpacking the objectives (keeping in touch with family and friends, producing information about the city and remitting it abroad) as well as the drawbacks (difficulties of producing information about everyday life in a way that simultaneously maintains ties and keeps people at a comfortable distance) of technological connectivity. The findings section is structured around two contexts of technology and identity work: online, particularly the use of the social networking site (SNS) Facebook, and offline, where participants talked about mobile technologies like smart phones as enabling them to pass for residents or natives rather than newcomers. These practices inform dialogue on context collapse in the specific context of transnationalism, where the geographic dispersal of participants' social networks render visible conflicts of flattened online networks. These findings also suggest a kind of technology-enabled code-switching, where transnational users leverage technologies to perform identities that alternate between communities, nationalities and geographies.

Theoretical Frameworks: Context Collapse and Code-switching

This chapter focuses on technological practices of urban newcomers as tied to identity work, or how "individuals shape and reshape who they are through language, behavior, appearance, and affiliation" (Shapiro, 2010, p. 93). Within HCI research, scholars have investigated the role of technology in identity work, such as Ames' (2013) work on technological practices related to iPhones among university students. In Ames' analysis, access to technology alone is an insufficient signifier of identity – the social consequences of using or not using technology, and the contexts in which those technologies are deployed are far more indicative of identity work as manifest through technology. O'Hara, Kindberg, Glaney, et al. (2007) linked the use of location-based technology to different types of collecting behavior in the context of digital photos at a zoo. In both studies, the social elements of how, when and in what context a technology is used are at least as important as the instrumental functions of a given tool like locative digital photographs.

Connections between identity work and technology are arguably even more explicit in the context of SNS. Related to technological design and complexity of individual identity, Farnham and Churchill (2011) argued that people's lives are faceted, meaning that "people maintain social boundaries and show different facets or sites of their character according to the demands of the current social situation" (p. 359). As such, the design of online platforms interpersonal communication should reflect the faceted nature of human identity. In these studies, identity work becomes a means of gauging the efficacy of various technologies according to metrics that go beyond basic functionality, accounting as well for the social objectives linked to a given tool or platform.

For scholars interested in issues of online identity work, the notion of *context collapse* offers a useful means of analyzing sources of tension in curating online identity. Context collapses result from a multi-faceted social network being flattened into a single audience, such that users find it difficult to curate content intended for or legible to only part of their personal networks (boyd, 2007 - See also Ellison et al, 2011; Hogan, 2009; Marwick & boyd, 2011; Wesch, 2009). Offline, people have the option to modify behavior based on their immediate social surroundings or to encode messages and gestures for a select few (Farnham & Churchill, 2011). On sites like Facebook, such practices are far more challenging. For transnational migrants, experiences of context collapse can track along distinctly geographic lines, where SNS users are confronted with posting content to friends, family, and acquaintances spread across the globe.

As a construct, code-switching provides a means of theorizing identity work in an explicitly transnational context. Code-switching originated in linguistics theory and traditionally refers to the transition between languages in a single conversation among bi-lingual speakers (Milroy & Milsken, 1995). From this fairly narrow construction of code-switching as conducted between speakers fluent[26] in two languages, the construct has been expanded to refer to altering between forms of vernacular or even between professional identities (e.g. Downey & Lucena, 2004). The relevance of code-switching in a discussion of transnational use of technology for interpersonal communication and identity work is perhaps immediately apparent, and

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[26] Because code-switching originated in linguistics, early research in this area preferred investigations of fluent bi-linguals to conversational or rudimentary bilingualism (as is the case for the majority of participants with whom I spoke) with the justification that the fluctuating linguistic competency complicates analysis of language as stable (Milroy & Muylskin, 1995, p. 9).

participants often talked about issues of (or in the case of interviews conducted in Spanish, demonstrated directly) code-switching in the context of learning English. Yet it's important to note that although this study could no doubt lend itself to a traditional code-switching analysis in terms of a strictly linguistic analysis, I take a broader understanding of code-switching, looking at code-switching in terms of participants' information practices, such as choosing to post in a particular language in order to direct SNS content to particular segment of their social networks. Code-switching provides an analytical lens for addressing socio-technical practices in the specific context of navigating interpersonal tensions stemming from a transnational social network.

Findings

In the first half of this section, I analyze references to identity work in an online context, focusing on participants' uses of Facebook, by far the most popular SNS in this study. Participants described benefits of using Facebook, including maintaining relationships with social networks abroad, and providing a platform for garnering prestige, as well as documenting everyday life. At the same time, participants also referenced drawbacks of SNS use: issues of language and audience; privacy concerns; and the exhaustion of feeling obligated to maintain an online persona. The second half of this section considers offline identity work, and in particular the identity work of not being a tourist, which participants associated with a de-privileging lack of information about city space. Participants deployed a range of technologies in order to navigate urban space in a way that could hide their status as newcomers. The divide between online and offline identity work is not intended to imply a strict binary in which online and offline identity are segregated or mutually exclusive. I follow scholars

like Burrell (2011), Gajjala (2009) and Nakamura (2008) in arguing against the characterization of online interactions as disembodied and offline as non-technological. As participant accounts will show, online identity work frequently involves documentation of offline experiences, and offline identity work draws on a range of technologies, including SNS. Thus this division is intended to reflect the contexts in which these practices are being used are primarily online (Facebook) versus offline (on the street). Both online and off, technological practices are interwoven with identity work, dynamics that become complex not only around transitions between online and offline contexts, but also in terms of transnational migration.

Online identity work: An analysis of Facebook. Potentially, online identity work could take a number of forms, for example, video chats, search engine use, online shopping and social media. I focus on the latter because it was an all but unanimous practice among people I interviewed and because research on transnational use of SNS is still largely undocumented (Caidi et al., 2010). Among the 18 transnational newcomers interviewed in this study, Facebook was by far the most popular SNS, referenced by 16 participants[27]. From its origins in 2004 as an online community for university students, Facebook has grown into the most popular SNS in the world, with one billion users. Particularly relevant to a project on transnationalism, approximately 81% of monthly active Facebook users live outside of the U.S. and Canada (all statistics from Facebook Newsroom, 2013), indicating the global reach of the site and in contrast to platforms with users bases concentrated in a particular geographic region

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[27] Perhaps unsurprisingly, the two oldest participants in this study, Julio (60, Dominican Republic) and Ishmael (42, Togo) did not use Facebook, or indeed any other SNS.

(e.g. Weibo in China or Orkut in Brazil). Facebook users fill out profiles with information about age, location, relationship status and personal interests, and their connections to other users are articulated via the display of friends. Depending on individual configurations of privacy settings, users can see each others' photos, links and messages, as well as their check-ins, which refers to posting one's geographic location[28], usually in reference to a business, venue or institution. These operational functions have important consequences for norms of disclosure and expectations of privacy, as demonstrated by the choices that participants made in when and how to use Facebook as part of the process of managing their own experiences of newness.

Fig. 12: Facebook allows users to post profile information, connect with other users and post streams of content, including links, photos and messages. Thanks to Bryce Renninger for providing a screenshot of his Facebook profile.

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[28] As of this writing, Facebook is in the process of rolling out new location-based functionality, which allows users (again, depending on one's privacy settings) to search for people in their social networks who, for example, enjoy watching *The Walking Dead* in Phoenix, or have checked in to vegan restaurants in Fort Worth (for details, see Tate, 2013).

Facebook and connectivity. In looking at social media use among people I interviewed, Facebook was used by participants to document everyday life and maintain social ties, both in New York and abroad. This is in keeping with arguments that devoting time to online interaction displays a commitment to the maintenance of social ties (Baym, 2010; Harper, 2010), and to previous work on transnational use of ICTs (e.g. Bacigalupe & Cámara, 2012; Wang & Brown, 2011). Nalan's (32, Turkey) description of using Facebook is typical of this type of SNS use:

> [Facebook] is very useful, definitely. I keep in touch with my friends, a lot of friends, family, my ex co-workers. It is good, you can see pictures of what's going on in their life, it's good, good. I like Facebook … I like using technology, especially [because] my family is in Turkey, I'm here, but we don't feel so far away from each other. We can see each other online.

Although she uses language that emphasizes visual interaction, Nalan is not referring here to videoconferencing tools like Skype or Google Hangouts. Rather, she refers to the sense of connectivity that takes place through online interaction. This use of Facebook confirms much of the literature on use of SNSs (transnational or otherwise) to maintain a sense of intimacy and connectivity with people in one's personal network, irrespective of distance (e.g. Baym, 2010; Harper, 2010). For Nalan and others in this study, Facebook provides an important means of articulating a social network of her friends and family, and signaling a commitment to interpersonal connectivity across space.

SNSs and signals of prestige. Facebook can be used to signal the maintenance of relationships with family and friends via updates, photos and comments, but was also used more narrowly as part of a particular kind of identity work intended to impress one's friends and family by documenting visits to well-known places or consumption of particularly famous, location-specific goods. Demonstrating how this process works

via use of Facebook's locative functionality, Alice (26, Australia) stated that she mainly used Facebook check-in to show off to her friends in Australia: "I was in a bar [I'd seen] from [the TV show] *Sex in the City*. So I had to check in on Facebook. I knew my friends in Adelaide would die." Similarly, Araceli (29, Mexico) referenced using Facebook check in to document visiting "the favorite tapas place [of] Lady Gaga." In both cases, Facebook becomes a means of documenting everyday life, but participants were also motivated by the ability to use Facebook updates as a kind of impression management, gaining status among their connections abroad for having access to iconic foreign locations. These technological practices are fairly complex accounts of signals that traverse space (New York and abroad), media (indirect encounters with celebrity translated into gaining status among one's friends), and technology (showcasing offline spaces to one's online connections).

Even outside of references to celebrities, I noted frequent references to everyday uses of Facebook's check-in functionality as a means of showing off. From these interviews, Sue (29, Korea) noted that she rarely checked in on Facebook in New Jersey, where she was a graduate student, however, "in [New York City] all the time I turn it on, the location function, so that I can just keep track of the location. I can just easily find something on Google maps, or I can check in somewhere cool in Facebook or Foursquare. Just try to show off I'm in the city now, something like that." Araceli described similar uses, stating that she used check-in on Facebook on

> happy days, like when … I was visiting many places with my friends [from Mexico] a few weeks ago. I post because all the time they told me like, please post us in this place, la la la, they didn't have service, phone service, so all the time [they] told me, please post us in this place. So yeah, I use [check-in] sometimes. Or when I want to remember some place, like some good restaurant. I like to do that.

In both Sue's and Araceli's descriptions, locative media accomplish a number of tasks – it helps them find locations in the city and documents those locations for future

reference. Sue and Araceli also noted that Facebook's check-in function allows them to transmit the experience of visiting a location to friends in a way that shows off, garnering prestige. In Araceli's case, there was an external pressure from her friends to check in and tag photos on their behalf as a way of accruing their own markers of status, or what might be called identity work by proxy. Araceli's friends push the efforts of gaining social status onto her own Facebook updates, where online connectivity can produce a shared labor of identity work.

Another facet of collaborative identity work as tied to locative SNS functions took shape via friend-based recommendations. For example, Carla (26, Philippines) noted "I can see recommendations [from my friends] to find places, [so it's] kind of tailored to what you like, I see suggestions based on where my friends are going, which I like." Although Carla had lived in New York for over a year, she still felt that her knowledge of the city was limited to the neighborhoods immediately surrounding her school and where she lived, and Carla commented that seeing updates about where her friends had checked in served as both a motivational and vetting mechanism to visiting new places. As a kind of follow-up function, Javier (26, Brazil) commented on the sense of satisfaction and pride that surfaced when he could post on someone's page that he had been to a location where one of his friends had checked in, effectively demonstrating his familiarity with different bars, clubs and restaurants. This kind of interactive communication is at once spatial and social, and underscores the extent to which identity and information work on Facebook is highly networked, in that identity work isn't solely a matter of what an individual user shares, it is also comprised of the content posted by those in one's personal network, where comments, posts and tags that link users also shape how identity is performed online.

Transnational Facebook fatigue. Interestingly, some participants expressed discomfort with SNSs precisely because of the possibility of using them to impress one's friends. Amelie (27, France) mentioned that although she had a Facebook account, she rarely used it, partly because she wanted to resist a construction of everyday urban life as overly conventional or touristy: "I don't want to post like typical sentences, 'I'm in New York and I do this.' So I don't know, I prefer to send email and maybe I use [Facebook to] send some the message. [I] send message more than like publish something, post something [on Facebook]." For Amelie, the communication functions of Facebook were useful as a transnational migrant, where the locative functions are more problematic. Voicing similar concerns, Lu (28, Mexico) described a transition in her use of Facebook check-in over time, moving from excitement at checking in to a sense of unease:

> Lu: When I was in a cool place, or when I was with a big group of friends, you know, then I wanted to show it to other people. But now I think it's weird.
> JFL: Weird?
> Lu: I don't know. It's weird … because I don't want to be that person who checks in somewhere because I want people to know I'm living in New York.

Here Lu suggests a backlash to SNS use that could potentially be interpreted as posturing or patronizing. Facebook users with transnational connections may want to use functions like Facebook check in largely for personal reasons, like documenting where they've eaten in a given neighborhood, but these actions may still have social consequences in producing unwanted connotations, such as showing off and generating "typical" rather than personalized identities.

Code-switching on Facebook. For 16 of the 18 people interviewed in this project, English was not their native language. Thus one important component of transnational use of SNSs centers on multi-lingualism. Participants explained that decisions about

posting on Facebook in one language versus another indicate the intended audience of a given online update or comment. As Araceli (29, Mexico) described, "If I want to say something that I think is involved with my friends in New York, I write in English, because I have friends from … many places. Or if I wanna say something just for my friends in Mexico, I will post in Spanish." Bilingualism enables transnational newcomers to direct (albeit somewhat loosely) their content to various parts of their personal networks, and they assumed that people will take language as an indication of whether or not the message is intended for them.

Bi-lingual posting can be marked as code-switching, but because of the visibility of this switch, it also becomes a coping mechanism for negotiating collapsed contexts. This is in keeping with Marwick and boyd's (2011) findings on SNS steganography, which refers to practices of hiding things in plain sight. Looking specifically at teenagers, Marwick and boyd found that adolescent Facebook users relied on inside jokes, slang and pop culture references to post content that only some of their connections could parse. Yet, at times, teens would also post encoded language that was explicitly meant to exclude, making it very clear to readers who could not understand the message that they were not part of the intended audience. Similarly, transnational newcomers I interviewed used code-switching to draw linguistic boundaries around their social media content, signaling information intended for a specific subset of their social networks. This kind of code-switching takes place not in a single conversation, but in a larger conceptualization of communication as a social awareness stream (Naaman, Boase, Lai, 2009), where a constant feed of information is intended to keep one's connections abreast of activities and events. Rather than constructing code-switching as being between two people, participants' use of code-

switching can take place with a larger audience, where language becomes a

mechanism of creating a hierarchy within an otherwise flattened social network.

Participants were typically highly tuned to how their networks would respond to

content that they couldn't understand. Laura (34, Brazil) described how some of these

tensions unfolded on her Facebook page:

> I started to publish, not *all* news that I publish, but *sometimes* I publish in
> Portuguese and in English. But all photos, all pictures that I publish, I publish with
> both languages. Because I know that my new friends that don't speak Portuguese
> want to know what I put in the pictures … I'm trying always to do this. I think, like,
> [it shows I] respect new friends. But sometimes it's only to publish news, some
> phrase or expression, I forget and I publish in Portuguese. But sometimes I publish
> in English and my father, my mother, my sister complain, "Oh, we couldn't
> understand, you need to write in Portuguese!"

Language is an indication of audience, such that voicing objections to the language

used in Facebook content is moreover voicing an objection to being excluded from

information about everyday life because the information being remitted lacks

translation.

As a counterpart to earlier comments that signaling location via SNS can be

read as posturing, there was an additional complication of feeling that code-switching

– particularly adopting non-native language – was presumptuous or haughty. As

Jacinta (33, Mexico) explained, "I have some judgment issues with people that use

English in Mexico. I don't like it, because it's like snotty, a little bit. I'm like, 'Oh, come

on. Oh yeah, we know you're in New York, I see that too.'" Where Facebook check-in

was sometimes used to generate status among one's followers in terms of place, here

Jacinta reads a similar kind of identity work linked to language in a derogatory sense.

Code-switching allowed participants some leeway in directing social media signals to

certain segments of one's personal network, but it also opened up complications of

managing a multi-lingual audience, members of which may react negatively to messages perceived as exclusionary or as posturing.

Facebook and breaking ties. Although mentioned less often, participants also discussed transnational migration as responsible for radically altering previous Facebook practices. As a whole, research on SNSs – and, transnational practices in particular – has been more focused on adoption and tie maintenance than departure and defriending (for exceptions, see Brubaker, 2012; Gershon, 2011; Kivran-Swaine, Govindan, & Naaman, 2011). The following examples are useful precisely because they are atypical, and allow for a counter narrative challenging assumptions about SNSs (and transnational use of ICTs in particular – see Burrell, 2012) as always, only or predominantly connective.

As a somewhat extreme example of altering SNS practices post-migration, Rob (28) moved from Puerto Rico to New York and promptly deleted the majority of his friends from his Facebook account. As Rob explained: "When I came to New York, I erased most of the people, most of my friends. Because I just wanted to change. I like changes. I wanted to change the past." Rather than using Facebook to maintain ties, Rob used Facebook as a means of severing them, a marked difference from the typical use of Facebook, at least among participants in this study. Rob went on to explain, "I wanted to start over again. I didn't know nobody in New York, so I just deleted people. And eventually, friends grow." Here, Rob describes Facebook as a platform for performing a particular kind of identity work, where removing people from his online social network symbolized his physical removal from Puerto Rico. This can be

constructed as a pre-emptive move[29] to avoid context collapse, effectively homogenizing his Facebook audience in terms of geography.

Jacinta (33, Mexico) echoed Rob's practices in a less drastic way, reducing her engagement with Facebook and Twitter rather than deleting connections altogether. Jacinta specifically linked her SNS fatigue to the burden of keeping her personal network in Mexico informed of her life in New York:

> And I don't post anything because it overwhelms me now. I have this visceral reaction to my persona online, that I just quit … I felt that I was living in Mexico too much, because I was too much monitoring what was going on in there, and I felt pressured to let people know what was going in on my New York life. Like I had to let them know that I was having a great life or something … So I decided I was not going to tell them anything. And I can see that this is not very well taken from the other side, it is probably a form of selfishness. But for now, it's sort of an unchosen choice. I'm just doing it that way. I wish for some day to be able to find a grey area, you know, when I can serenely do Facebook and Twitter but for now I just feel it's too much maintenance, putting too much out there, like maintaining relationships with people, especially on Twitter, and I feel too exposed … Too much exposure, I don't want to feel so exposed.

This account highlights tensions that emerge from transnational migration and are borne out online, specifically in terms of identity work via SNSs. For Jacinta, with migration to New York came a pressure to use social media in a way that signals an enduring connection to her friends and family in Mexico, but complying with these pressures led to a sense of "living in Mexico too much," as well as an unwelcome feeling of overexposure. Jacinta's desire for a "serene" post-migration engagement with SNSs speaks to a disconnect between the level of engagement desired by Jacinta's contacts and her own need for control and privacy. Thus Jacinta is no longer

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[29] Rob's decision to delete most of his Facebook friends in some ways mirrors Gershon's (2011) findings that college students will deactivate their Facebook accounts in order to mitigate turbulence in romantic relations. See also Marwick and boyd's (2012) findings on teens temporarily deactivating their accounts in order to forestall interpersonal drama at school.

willing to produce and share information about her everyday life because it requires "too much maintenance, putting too much out there" and "too much exposure." Jacinta's description points to the cost of online identity work as a burden of time and energy, particularly because of the operational limitations at work: SNSs encourage sharing without necessarily providing a way to keep in touch without self-disclosure, which results in the feeling of removing oneself from the present location and, instead, being pulled back into one's country (or at least, personal network) of origin.

Context collapse and a transnational audience. The most popular SNS among participants in this study, Facebook operates on a number of levels in facilitating online identity work. Facebook provides a means of bringing together social networks distributed across geographic spaces. The production of information – via updates, photos and check-ins – operationalizes identity work as a set of practices that draws together the personal (such as documenting restaurants or bars) and the semi-public (one's online social network). Although this identity work is useful for connecting with friends and family abroad, using Facebook also generates moments of interpersonal, intercultural tension, as when code-switching between languages generates online message that include and exclude within a social network. Broader than decisions about which language to use when posting on Facebook, some participants voiced hesitation about whether to post at all. Citing concerns of privacy and feeling pressured to self-disclose, such that practices of rejecting, restarting or heavily reducing use of Facebook surfaced among a smaller number of participants. These findings provide a useful counter-balance to HCI research on transnationalism that over-emphasizes or over-simplifies the use of ICTs among transnational users as

linear, unproblematic and primarily about maintaining and forging ties rather than manipulating or breaking them.

Context collapse hinges on homogenizing a diverse audience, where heterogeneity results in a kind of paralysis. For Wesch (2009), context collapse is experienced by YouTube users as a kind of stasis, where would-be vloggers are "frozen" by "the problem of too many possible generalized others," including one's future self (p. 23). But for transnational newcomers with whom I spoke, context collapse was experienced far more narrowly. Hesitating or declining to post was reported not because it was too difficult to conceptualize audiences – participants were in fact able to imagine their audiences quite precisely, both spatially (in terms of domestic and abroad) as well as temporally (before and after migration) – but because audiences were so heterogeneous as to make a single message deeply problematic.

Findings from this study also have implications for rethinking code-switching in the context of online identity work. In the context of advertising, Luna and Peracchio (2005) examined the reception of ads that contained both English and Spanish, noting that code-switched slogans activate emotional associations related to the specific language and culture being used. In other words, code-switching takes place on a level that is not only linguistic, but also emotional and social. The emotion and affect at work in code-switching is in fact central to understanding how transnational newcomers leverage bilingualism in order to signal an enduring commitment to friends and family abroad. But as in the case of advertising, this affective labor requires substantive knowledge about one's personal network, and specifically their SNS reading practices. This finding underscores the above point about the extent to which context collapse is experienced not necessarily in vague or paralyzing ways for

transnational folk I interviewed, but far more acutely in terms of personal networks divided geographically. Future work could focus on the reception rather than production of code-switching content. Participants commented on the reactions of their online networks to code-switching, but how are these messages understood and circulated by people whose friends and family have migrated abroad? To what extent is code-switching interpreted as an enduring commitment to one's place of origin?

Bilinguialism enabled participants some leeway in guiding content of their online identity work to certain portions of their personal networks. Yet it's worth noting that with a broad definition for code-switching, the experiences of transnational newcomers have implications for other SNS users. Additional research on online identity work is needed to understand whether different levels of technological use can be deployed to manage context collapse – for example, using different platforms (e.g. Tumblr versus Facebook) to reach different members of one's personal network, having different accounts within the same network, or using group functionality (like Google+'s circles).

Impression management of self and city. Context collapse is frequently constructed as a conflict experienced individually, a crisis of selfhood. For example, Hogan (2009) linked context collapse to Benjamin's construct of aura and authenticity, arguing that online identity work must contend with constant reproductions of the self[30] in a way similar to Benjamin's worry about the deterioration of an artwork's "aura" in the wake of endless reproduction. For participants in this study, concerns of authenticity were partly tied to the self, particularly in the need to balance a sense of

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[30] For a fascinating analysis of online reproduction of selfhood in terms of Caillois' (1911) work on schizophrenia and mimesis, see Merrin (2007).

being rooted in one's point of origin with a sense of being embedded in everyday life in New York. Jacinta's description of reducing her SNS use in order to avoid "living in Mexico too much" points to tensions of producing selfhood both in New York and abroad. New York has its own aura, however, and participants' references to concerns of "showing off" tie context collapse not only to impression management of the self, but of the city.

Transnational flows of information not only maintain social ties through updates of everyday life, they also inform expectations of urban life. In terms of assigning socio-cultural value to personal interaction with spaces depicted in media representations of the city, Alice's references to using Facebook check-in to denote visiting sites seen on *Sex in the City* can be read as the flipside of Araceli's description of her friends' requests for her to check them in on Facebook during a visit to New York. To be clear, I'm not suggesting a tidy feedback loop in which transnational migrants broadcast encounters with as-seen-on-TV sites, which people in their social networks from outside the city (whether elsewhere in the U.S. or abroad) uncritically take up as completely normal urban life, and then expect to reproduce precisely in their own visits to the city. As I've attempted to demonstrate throughout my discussion of relationships between technology and identity work, real life is much messier, with complications of language, privacy and socio-cultural tensions. It is precisely this messiness which is elided by research on transnational use of ICTs in terms of efficiency and connectivity, when in fact recognizing the messiness and complexity of socio-technical fabrics can be a highly productive means of both designing and theorizing technology (Dourish & Bell, 2011). In the specific dynamic I've outlined above, transnational flows of media and information operate along a

number of lines – depictions of city life in the mainstream media as well as informal channels established via SNS. The fact that these pathways of information are complex by no means makes them less powerful.

Technology and offline identity work. The previous section analyzed online identity work, focusing on the use of Facebook. In this section, I identify socio-technical practices related to offline identity work, particularly the relationship between technology and tourist identity. Across interviews, the figure of the tourist drew remarkably similar associations,[31] including naivety, haplessness and ignorance. Interestingly, Cecille (33, Cameroon) explicitly linked taking pleasure in being in the city to being a tourist: "You have to be a visitor, a tourist to enjoy the city. If you live in the city, you can't enjoy the city." Julio (60, Dominican Republic) echoed these sentiments, commenting "I know the place [New York] as a tourist, but as a resident, it's another status." Julio went on to elaborate on the different experiences of New York as a visitor versus as a resident:

> When you come here as a visitor, all the people are very friendly. But later, when you come here, to keep family here, it's another story, a long story to find some job and some money to live. And to have a lot of chances. Like visitors enjoy the day, maybe they stay here as a permanent resident, [but] it's a lot of money, because no matter what New York is very expensive, very expensive.

These accounts suggest a trajectory of identity that moves from tourist to resident and also from leisure to labor. They also point to an awareness of difference in privilege ascribed to the identity of natives versus newcomers.

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[31] My favorite description of tourists came from Raul (22 Honduras), who characterized tourists in the following way: "they are wearing a backpack, sunglasses, and they have a lot of water."

Technology and the anti-tourist. Participants overwhelmingly ascribed a kind of vulnerability and foolishness to tourist identity, and many described specific uses of technology to avoid the appearance of possessing those traits. For example, Amelie (27, France) made it a habit to consult online information about public transportation, specifically the Metropolitan Transit Authority (MTA), prior to leaving the house: "I go to the website of MTA to know how to have a card, because I don't want [to look] like a tourist." Until information about transit is sufficiently ingrained, technology becomes an important proxy for information that enables evasion of having to ask a stranger or look at a map while at a subway station. Amelie's reluctance to display lacking knowledge was echoed by an account from my work on locative media and transnational experience (Kim & Lingel, 2012). As Sue (29, Korea) described, the privacy of mobile technology allows for the concealment of her newcomer status:

> I don't know if I'm comfortable with the paper map anymore, the big paper map, because that's kind of a sign that I'm a tourist. So to hide that, I just use the mobile technology to pretend [to be] the native person in that area ... I don't want to be seen as a tourist in any city, that's why I just want to use [the map] privately, rely on the mobile technology. And avoiding asking some person, any person on the spot.

For Sue, mobile technology is not only useful for providing information about urban space, it furthermore provides privacy of information practices, without the vulnerable display of lacking information. In these accounts, outing oneself as a non-native is avoided by careful arrangements of technology[32], as in Sue's surreptitious referencing of mobile apps or Amelie's pre-emptive consultation with the MTA website prior to leaving the house. These negotiations reflect how identity work can

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[32] Given the increasing popularity among tourists of using PDAs such as ipads to navigate city space (See Tucker, 2013), it's interesting to consider of how the figure of the tourist will continue to evolve in terms of technology (or the lack of technology) signaling either belonging or outsider-status.

be at once technological, performative and relational, as a deliberate attempt to distance oneself from appearing to be a tourist.

With extended experience in the city, participants frequently came to contrast current understanding of city life with those of tourists, a discursive maneuver that distances their present self (as acculturated to and knowledgeable about the city) from a touristy past. Yet, even as participants sought to distance themselves from tourists, for those who had visited New York prior to migrating, there was often a fondness in recounting initial, pre-migration trips to the city. For example, in another account from my work on transnational students and locative media (Kim & Lingel, 2012), Giselle (30, Philippines) contrasted her initial visit to New York in terms of technology with her current practices:

> [Using Google Maps is] useful, so you kind of just don't get lost, but sometimes I forget even to look around. When I was here actually two years ago, before having a smart phone and I was just a tourist, I literally walked from midtown all the way to the Met ... And I found my way around. Granted it took me like the whole day, but I was just like, "oh, wow," looking around. And that was great, also because I wasn't doing anything, I mean I was a tourist and I had all the time to walk and think and stop and go here and go there. Google maps helps if you just have to be there.

It's interesting that in her description of first visiting New York, Giselle couples "before having a smart phone" and being "just a tourist," collapsing the two conditions. This underscores Sue's argument that being without a smartphone leaves unappealing options of having to ask for help from strangers or carrying a paper map, beacons of newness in city space. Another way of reading Giselle's constructions of being a tourist versus being a resident is to suggest that for tourists, the use of technologies to maneuver through urban space is almost entirely informational, whereas for those attempting to distance themselves from the figure of the tourist, technology provides an additional function of concealing newness.

As a final example of participants distancing themselves from tourists, Rob (28, Puerto Rico) described motivations for familiarizing himself with city life specifically in terms of being a non-tourist:

> My first week, I didn't know what I was doing. I just let my body go and go with the flow, just intake people, like not look like a tourist … Because I *know* I'm not going to be a tourist, this is going to be my home, I was going to stay here for a long time. Living in another place, it's such a drastic change, I wanted to make it part of me as quickly as possible.

For Rob, a crucial component of identity work included monitoring the behaviors of those whom he perceives to be Native New Yorkers. In asking for specifics about this monitoring, Rob explained, "So I started really being observant and watch how New York life is to get adaptive, and not be so lost. But I got lost a lot. On the train." Partly, I suspect that as an avid cyclist and bike activist, Rob has something of a political and social investment in *not* feeling comfortable on the subway. But the larger narrative here is that Rob seeks to position himself as directly opposed to the figure of a tourist, and to that end constantly canvassed the practices of those around him that he perceived to be natives. Again, the figure of the tourist is important in giving transnational newcomers a counter-narrative for identity work, a characterization to avoid as deliberately as possible.

What drives participants' discomfort with tourist identity? Even participants who were in the U.S. on tourist visas[33] for short periods of time (such as Midori (36, Japan) on a post-doctoral fellowship and Amelie (27, France) visiting for a summer to learn English) were resistant to the idea that they were tourists. The reluctance to

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[33] Many participants went through a range of visa types during their time in the U.S. For example, both Noely and Laura described transitioning from student to tourist visas and then filing asylum applications in order to prolong their stays. Given this fluidity, it's not surprising that the specific type of visa participants had carried little enduring salience in terms of identity.

admit a lack of information stems from the display of vulnerability or alterity (Chatman, 1999; Hamer, 2009; Hasler & Ruthven, 2011; Lingel & boyd, 2013), but there are some additional complications in the accounts discussed here. Interestingly, the construction of tourists as not just socially but spatially naïve is echoed by Lefebvre (1967/2007), who wrote of

> the archetypal touristic delusion of being a participant in [space], and of understanding it completely, even though the tourist merely passes through a country or countryside and absorbs its image in a quite passive way. The work in its concrete reality, its products, and the productive activity involved are all thus obscured and indeed consigned to oblivion. (p. 189)

Lefebvre's definition hinges on participation, where tourists are distinct from natives because of their passivity, their lack of engagement with space. For Lefebvre, it is impossible for tourists to understand the work that takes place in and shapes urban space, and arguably most tourist destinations have a vested interest in obscuring (or staging) precisely these features of city life.

Participants echoed many facets of Lefebvre's construction, in that they associated tourists with transitory visiting, with pleasure rather than work, with whirlwind, predictable breadth of "tourist traps" rather than a few "hidden gems" or self-made discoveries. I would argue that transnational newcomers I interviewed were resistant to the "placelessness" associated with mass tourism (Wearing, Stevenson & Young, 2010, p. 20), wanting precisely to assert claims to city space. As such, tourist identity does a disservice to the sustained engagement and difficult work required to stake claims of familiarity with city space. The stakes for participants are, partly, showing commitment to the city; Tourist identity, for participants, denoted an ignorance that is declared openly, signified through the use of human informants rather than mobile technology to fill in gaps in knowledge. In this way, technological

practices of performing belonging fit into participants' commitment to the city, what Massey (2005) might call a commitment to transitioning from space (as static and essentialized) to place (as having personal, affective and social connotations). Spatial practices are also technological practices, where tracking the relationship to technology across participant accounts of everyday urban life generates insight not only into technical functionality that is or isn't useful in navigating space, it also speaks to the social stakes of leveraging technology to perform belonging rather than outsiderness.

There are advantages to tourist identity, which can enable someone to avoid seeming like a threat (as demonstrated by an Occupy Wall Street tactic of dressing like a tourist (Occupy Wall Street, 2012)). Also, the apt use of technology should not be positioned as universally sufficient to pass effectively from one group to another; ethnographic research is riddled with accounts of attempts (and frequently failures) to pass in a social context outside one's own, many of which would be unaltered by a well-timed display of technological proficiency. In my own research, going to a mosque with Ishmael as part of understanding the information resources available to him was a difficult experience not because I lacked technological proficiency, but rather cultural proficiency in Islamic norms of worship. As a whole, my argument is neither that tourist identity is universally to be avoided nor that technology is universally sufficient to pass as a native, but rather that looking at technology as a tool of identity work and not just a tool of information provides an insightful lens for interrogating boundaries of belonging and privilege.

Conclusions

As a continual process of making and unmaking, identity work takes shape through practices of language, style and media, components that surfaced repeatedly across accounts of both online and offline technologies. Experiences of transnational migration required participants to make sense of their identities in a new space (or really, set of spaces) and also to produce and reshape identities as part of the process of maintaining relationships abroad. Using context collapse and code-switching as conceptual lenses, I first addressed both affordances and complications of using SNS as a platform for identity work. These accounts provide a useful counter narrative to work on transnational use of ICTs that emphasizes efficiency and connection without addressing complexity and rupture. More narrowly, this analysis informs Internet Studies research of identity work and code-switching as a coping mechanism for context collapse. By focusing on how participants manage flows of information to transnational networks of friends and family, my analysis unpacked some of the ways in which producing information about the city also produces information about the self. These inter-relations can be used to gain status, but can also generate tension, as when posts and updates are interpreted as showing off. I brought in analysis of code-switching as a means of framing transnational identity work, where participants leveraged bilingualism to cope with context collapse. These discussions of identity work and code-switching provide a conceptual layer for addressing the roles of technology in everyday urban life for transnational newcomers.

In terms of offline identity work, I examined the link between technological practices and tourist identity, where participants used technology, particularly mobile technology, to hide their status as newcomers. As a whole, participants were in agreement about the figure of the tourist as something to avoid, and their accounts

reveal some of the ways in which technology offers dual functionality of obtaining information and then using that information to produce or perform a particular identity. The performative nature of technology and information in producing the characterization of the anti-tourist relates to earlier analysis of participants' use of Facebook and identity work. In both instances, newcomers leverage a range of technologies – from Facebook to the MTA webpage to smart phone apps – to produce information about the city as well as themselves, and to undertake identity work that situates themselves as having a relationship of belonging in and familiarity with the city. These practices were one of the clearest indications of the extent to which locating information about city space is only partly about information, and moreover has a powerful link to managing identity.

Chapter 6: Conclusions

Drawing on conversational interviews, participatory maps and wandering through city space, my research has centered on information practices and uses of technology among transnational newcomers in New York City. I structured findings of this investigation along three dimensions. In Chapter 3, my first area of focus involved information practices used to become familiar with urban space. In the context of HIB theory, a key contribution of this chapter is to revisit issues of agency in theories of information behavior, stemming from participants' accounts of habits and wandering. Participants referenced information practices for learning about city space as being rooted in everyday routines, from which I drew out an analysis of habits for organizing and learning about city space. For transnational newcomers in this study, habits arose from experiences of lostness, where the deliberation at work in these accounts suggest a need to revisit a long-standing discussion in HIB theory related to agency. In what contexts is it productive to investigate sites and resources of obtaining information and in what contexts is it useful to conceptualize information practices? I take up this discussion later in this chapter. I also developed an analysis of wandering, which was described as a pleasurable practice for learning about the city, and moreover as a practice that could apply to specific neighborhoods or the city at large. I contrasted wandering with the use of online maps, which participants often described as vital tools of navigation even as their constant use entailed a tradeoff between short term convenience and long-term spatial alienation. This contrast opens up discussion of technological paradigms guiding urban policy, which I address in this chapter through an analysis of fast and slow technologies in city space.

In Chapter 4, I examined newcomer relationships to space, analyzing participatory maps as a means of understanding how city space is conceptualized and organized. In contrast to existing literature that deployed participatory maps to identify local resources or track individualized histories of space, maps in my study were useful in understanding newcomers' relationships to space in terms of navigation and wayfinding. This was borne out in both the small scale of maps and the tendency to use landmarks as guiding features of navigation rather than to note sites of personal attachment. These findings have implications for the design of online maps and games, which I address later in this chapter. I also discussed references to social practices as a means of categorizing city space, where participants linked prevalent behaviors and norms to indicate spatial boundaries. These intertwining of social practices and spatial divisions became particularly complex in the context of ethnic enclaves. On the one hand, many participants voiced a sense of relief and pleasure in recognizing and feeling fluent in social practices exhibited in ethnic enclaves that corresponded to their backgrounds. At the same time, several expressed hesitation at over-identifying with an enclave at the risk of getting to know or identify with the city as a whole. These findings present a useful contribution to urban studies theory of neighborhood space – from a newcomer perspective, monitoring socio=spatial practices can alternately allow one to pass for a local, even as social surveillance is also a vital part of maintaining (and enjoying) immersion in outsider communities like ethnic enclaves.

In my final findings chapter, I analyzed the relationships between technology and identity work. I first discussed online identity work, and specifically uses of Facebook, where documenting everyday life in New York allowed participants to keep

in touch with friends and family, as well as gaining social capital. Participants also reported instances of socio-cultural tension that arose on SNS, where decisions to post in one language over another could result in alienating part of a multi-lingual audience, and uses of features like Facebook check-in could alternately be characterized as garnering status or over-sharing. I also analyzed instances of offline identity work, where participants were adamantly opposed to thinking of themselves as tourists. Many participants described various technological practices such as pre-emptive consultations with public transportation websites and surreptitious use of smartphones in order to "pass" as non-tourists. These practices speak to the ways in which information becomes performative (see Chatman, 1999), carrying social and cultural implications that exceed the utility of information purely as data. Transnational use of ICTs remains an understudied area in HIB research (Caidi et al., 2010) and a key contribution of this chapter is to present a holistic understanding of the range of technologies deployed in everyday urban life for transnational newcomers, and moreover of considering both the benefits and drawbacks that emerge from those socio-technical fabrics.

None of the implications that I've drawn from participant accounts are inherently tied solely to transnational experiences, in that other kinds of newcomers likely deploy similar kinds of information and technological practices. But by investigating experiences of transnational newcomers learning about the city, it becomes possible to highlight assumptions about urban space, both in terms of how it is organized and the technological protocols that take shape there. In this concluding chapter, I discuss implications of my findings for theory and design. First, I draw out implications for HIB theory along two themes: an interrogation of HIB terminology in

terms of human agency and a discussion of "everydayness" in accounts of socio-technical practices. From participant accounts of tools for navigating urban space, I address urban policies related to technology, contrasting paradigms of fast and slow technologies. I then turn to a more design-oriented discussion of online maps, suggesting possibilities for alternate designs of online maps and games. I conclude this chapter with a discussion of limitations of my investigation and directions for future research.

Theoretical Implications

In this section, I draw out implications of my findings for HIB theory, looking to make my data speak to tensions and gaps in the conceptual literature. In particular, I'm interested in returning to a longstanding HIB debate on how to construct human agency within theories of information behavior. Conceptual tensions of HIB have centered on the extent to which information is subjective or objective (Bates, 2006, 2008; Hjørland, 2007), cognitivist or constructionist (Dervin & Nilan, 1994), constructed as an object to be retrieved or as a vital component of socio-cultural context (Fisher, Erdelez, & McKechnie, 2005). Rather than resolving these tensions, my objective is to return to them with data gathered in this project in order to interrogate questions central to these debates: to what extent is human agency reflected in HIB terminology, and to what extent is agency assigned elsewhere? Drawing on analysis of participants' everyday lives in the city (and in particular on findings from Chapter 3), I make two arguments for pushing the boundaries of HIB theory that investigates everyday life: first, that within constructionist approaches to information behavior, spatial metaphors of information theory do not sufficiently account for individual agency and intention. Second, I argue that HIB scholarship

hasn't asserted itself in dialogues on ubiquitous computing and mobile technology, even as these are areas where LIS as a discipline stands to make significant theoretical contributions.

Throughout this discussion of implications for theory, I use "information behavior" as a general term to describe human activity related to information, which allows me to make a narrower critique of terms of terms like information grounds, practices and seeking. I use the abbreviation ELIS throughout because is the standard within LIS scholarship for denoting research related to everyday life, even as the abbreviation includes "seeking" when a broader association of "behavior" would be more flexible. I use the term "information practices" when referring to specific activities or behaviors referenced by participants in this study, first because this is (as explained in Chapter 1) my preferred term within HIB analysis, and second as an attempt to disambiguate between theoretical discussion of terminology within LIS research and referring to discrete behaviors that emerged in the course of this investigation.

In defense of practice. Similar to research on retrieval and information behavior in professional contexts, initial ELIS research reflected both cognitivist and task-based origins (Dervin & Nilan, 1994), but has over time developed across a range of metatheoretical arguments (Fisher, Erdelez & McKechnie, 2005) including more interpretive perspectives like constructivism and constructionism (Savolainen, 2008). As an overall trend, HIB theorists have moved towards conceptualizations of ELIS that emphasize social contexts, but even for scholars producing work that participates in this shift towards people (rather than systems) based research, there are real differences in how information is conceptualized. In this section, I address the implications of these differences by drawing on my analysis of participant accounts of

newness in city space. In particular, I put information grounds – often used for analysis of spatial dimensions of information – in conversation with practice. Doing so allows me to tease out the differences in conceptual purchase between these two terms.

A number of terms in HIB theory draw on spatial metaphors, for example, information grounds (Pettigrew, 1999), information worlds (Praeger & Burnett, 2010) and information ecology (Nahl, 2007). In a sense, a project as rooted as mine in questions of space and information should seem well-suited to theories of information that embrace the importance of space in analysis of information. For example, information grounds research (e.g. Fisher, Durrance, & Bouch Hinton, 2004; Pettigrew, 1999) typically includes a documentation of where information is obtained; For example, in Fisher, Landry and Naumer's (2007) study of information grounds on a college campus, the authors used survey data to categorize locations where students obtained information. A fundamental component of information grounds is the characterization of information as fluid and free-flowing, something that emerges across a range of social contexts (Fisher, personal communication). Taking an information grounds approach to transnational newcomers in New York could have involved documenting specific locations and settings where participants obtained information relevant to the overall project of familiarization.

Yet what emerged repeatedly from interviews is the extent to which participants deliberately sought information and intentionally crafted information-based habits, both to cope with experiences of lostness and to organize their understandings of city space. For example, in my analysis of offline identity work, participants used technology to construct non-tourist identity. These practices were deeply rooted in spatial contexts, typically referencing street sidewalks and subway platforms as

locations in which it feels imperative not to locate information from people and instead to obtain it on the sly, using smart phones and online maps. As well, wandering is a practice that involves moving through space in a way that deliberately accumulates information. In both examples, understanding participants' experiences of newness in city space requires accounting for a dimension of individual agency in information behavior. Partly this reflects my methodological approach of emphasizing information practices, in that key research questions guiding this project emphasized how participants became familiar with city space in terms of information practices and uses of ICTs. Yet taking this approach is precisely what allows me to use my findings to at least partially answer a call (Budd, 2013; Case, 2012) for work on how information is used in everyday life, rather than focusing on where it is located.

As the sheer number of potential terms linked to information indicates[34], HIB is a field that accommodates a number of terms and theories for analyzing information. My objective is *not* to dismiss information grounds (or worlds or ecologies) as an approach to analyzing ELIS, and neither do I want to overstate the extent to which information grounds is connected to space – work with this concept routinely incorporates an understanding of social ties and relationships as a vital part of how information is evaluated and gathered. Instead, my focus has been to point out that (as in any discipline) some theories will inevitably be better suited to some investigations than others. Research on information grounds can provide rich insights into where resources are located and (from an activist angle) can help address gaps in providing information to underserved communities. But in terms of analyzing what

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[34] Even a brief list includes the following: behavior, ecology, gathering, grounds, habits, needs, practices, poverty, retrieval, searching, seeking, tactics and worlds.

people *do* with information rather than where it's found, other framings, like practice, habits and tactics (Lingel, 2011), may be more useful. In terms of LIS theory more broadly, there is a need to consider whether HIB investigations have perhaps downplayed the "human" element of HIB. Interestingly, the emergence of "information behavior" as a term was met with resistance among LIS academics and professionals who noted that people's behavior was the object of study, not information itself, which could not, strictly speaking, have behavior (Dervin & Nilan, 1994). I argue that it is worthwhile to return to this debate in conceptualizing "context" in HIB theory. Space is always already imbued with social relationships and practices (Lefebvre, 1967/2008; Massey, 2005), an inter-relatedness that bears recognition and attention from LIS theory.

Defining the everydayness of ELIS. In addition to questions of how information is conceptualized within LIS as a discipline are narrower questions of what it means to study information as "everyday." HIB literature on ELIS tends to be situated as a counterpart to professional information seeking, where context becomes the fundamental divide between ELIS and a more general understanding of HIB (Savolainen, 1999). In other words, *where* information behavior takes place has always been a pivotal element of ELIS, in that information seeking at work and in libraries has constituted a conceptual division from "everyday" information seeking at home or other non-work, non-school, non-library settings. Two elements from participant accounts of newness provide a means of debate within this construction: first, the emphasis on movement and mobility as an information practice calls into question the persistent emphasis on setting as a means of demarcating ELIS from HIB more generally, and second, given the ubiquity of information and technology in everyday

life, to what extent is it possible (or desirable) to segregate "everyday" information behavior from professional, academic or other contexts? I expand on these points next.

In terms of mobility, participants frequently emphasized movement in their discussions of familiarization with city space, describing mobility as actions that could be executed expertly or haltingly, with ease or with hesitation:

- P2[35]: Now it's okay. I know how to move in New York … I know how to make connections, how to move.

- Luka: I'm like a hard New Yorker. I can have my own place, my own city, because I know the places, how to go, where to go. How to make it. I feel like a fish in water. Still I am improving, I can never say I am like a person who has always been here, still I feel myself very at home.

- Nalan: Life is easy, just to get some place from somewhere it's easy, when you can find transportation, I think life is easy, not that difficult.

- Raul: I think the first thing is that now I know how to get to any place.

These accounts reflect the idea that within the context of becoming familiar with city space, mobility is both an *objective* (e.g. learning how to use public transportation) and a *means* of familiarization, as when moving through a neighborhood produces information about the space through which people move. Put another way, movements through city space can be leveraged into information, helping newcomers to transition from the unfamiliar to the familiar. Given that the roots of ELIS emphasize environments and spatial context for determining whether a phenomenon counts as

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[35] Denotes a comment from the pilot study (Lingel, 2010), in which participants were identified with codes rather than pseudonyms.

"everyday" or "professional" information behavior, mobility as its own information practice would seem to collapse the two. When Rob referenced biking around New York as a means of familiarization with city space, his free time wandering has real benefits for his professional life as a delivery person. Given that professional life continually intrudes on the personal and vice versa, what is gained by sectioning off ELIS from other contexts?

Recalling Julio's "always on" practice of monitoring information in the midst of wandering, Midori's practice of learning about city space by mixing up her daily commute and Rob's fluid incorporation of differing socio-technical fabrics in his delivery work, the boundary between ELIS and other kinds of information behavior become incredibly difficult to maintain. The tenuousness of the boundary between "everyday" and professional information behavior becomes even shakier in the context of mobile technologies. Although HCI research has long adopted an awareness that the profusion of mobile technologies in everyday life stands to reshape socio-technical interactions (Dourish & Bell, 2010), HIB research has been slow to address these issues in depth, particularly on the level of theory. As an area of study concentrated precisely on what people do with technology to meet information needs, HIB research should (re)articulate a definition of ELIS that accounts for the material realities of shifting socio-technical fabrics, which include but are in no way limited to mobile technologies.

Implications for urban technology policy: Spaces for slow technology.

My analysis of information practices used by participants to become familiar with city space points to some of the technological paradigms buttressing these ambitions for convening interactions between the city, its inhabitants and technologies.

Technology was often an important part of learning about city space for participants, but it was not at all necessary that these technologies be particularly sophisticated. For example, as a socio-technical practice, wandering is somewhat distinct in its slowness, a practice that consumes rather than conserves time. Accordingly, wandering fits within a larger push towards re-evaluating an emphasis on efficiency and speed as metrics for technology, part of a general interest in slowness (e.g. slow food (Petrini, 2007), slow reading (Miedema, 2009), and (in more of an HCI frame) slow search[36] and calming technology (Paredes & Chan, 2011; Rogers, 2006; Wongsuphasawat, Gamburg & Moraveji, 2011). Implicit in this shift is a challenge to a progressive paradigm of technology in which more speed and increased functionality are always and necessarily better. This is not to set up a reductive divide in which slow is good and fast is bad; my analysis of the role of technology in performing a non-tourist identity speaks precisely to the complex relationships between people, space and technology. But my analysis underscores the salience of challenging progress narratives of technology in general, and of urban narratives specifically.

Discussions of urban space and technology frequently push policies of making cities more tech-friendly (e.g. making an entire neighborhood or city[37] wireless). Associating city space with metaphors of speed, complexity and technological sophistication is not a new phenomenon (see Simmel, 1905/1967) but it doesn't follow that policy makers should feel obligated to continue supporting this narrative. Bearing in mind Massey's (2005) arguments on the importance of social interaction as

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[36] Work is currently underway in the Socio Digital Systems group at Microsoft Research Cambridge to apply an ethic of slowness to online searching.
[37] As an example, see Terrell (2013) and Terrell and Jackson (2013) on Google's recent efforts in Kansas City, Missouri.

a defining characteristic of place, technology becomes important not only for learning about city space, but in shaping interactions between its inhabitants. Bringing both of these points together – technological ambivalence and the importance of social interaction – from a policy perspective, it is more important to ask whether urban infrastructure facilitates social interaction as well as spatial familiarity, rather than a far narrower metric of whether or not city infrastructure supports (a typically narrow concept of) technology.

Implication for Design: Online Maps

From this broad perspective of urban policy and technology, there are also connections between accounts of transnational newcomers I interviewed and specific design implications. Given the overwhelming reliance on online maps among participants in this study, their experiences of newness in New York can inform design for online maps. All participants had used online maps in some capacity and most reported a strong preference for Google over other maps (digital or physical), with a few describing themselves a dependent on it for navigating urban space. Internet studies researchers are bringing increasing attention to the extent to which search algorithms simultaneously shape and are shaped by use, and the extent to which ideology is embedded in databases and algorithms that are constructed as neutral (Annany, 2011; Gillespie, in press; Pariser, 2011). Similar analysis should be extended to the ethics and ideologies of digital maps (See Monmonier, 2010). Two functions of online maps emerged from interviews that underscore the embeddedness of underlying ideological structures: landmarks and route suggestions. Although my analysis in the following sections focuses on Google maps as the most popular tool

among participants in this study, my arguments are likely applicable to a wider range of online mapping tools and mobile apps.

Online maps and landmarks. When Google displays a map, it identifies city names, highways and state parks. As a user zooms in, the map beings to point out landmarks and features of interests – golf courses, airports, universities. Eventually, users are presented with individual street names, restaurants, playgrounds and clothing stores. By altering display criteria (at least at the time of this writing), users can also see photos, videos and Wikipedia entries linked to a particular geographic location (see Fig. 16 and 17). Among people I interviewed, most participants were not actively aware of the landmark feature on Google Maps, and dismissed my questioning of the possible influence of landmarks on their decisions about where to go, how to get there or what city space looks like. And yet, even as participants didn't recall landmarks as a feature when asked about Google maps, they did occasionally reference precisely this function in talking about navigating city space. As Luka (29, Georgia) described: "Google maps cannot tell me where to go. I am only looking at what I know from [having been there] before. I see something from before and then I know how to go." He illustrated the example by explaining that in preparing to meet at the café where I'd arranged to interview him, he had looked up the location on Google maps, and noticed a nearby concert venue where he'd been previously. At that point he didn't bother asking Google maps for specific directions and simply repeated the route that he'd taken before. This is the reverse of an account I described earlier in Chapter 3, where not being able to access Google maps on her iphone led Noely to feel immobile, even to the point of being unable to locate a coffee shop in her

neighborhood. Landmarks are an important means of orienting oneself to space, of feeling a sense of familiarity in a given environment.
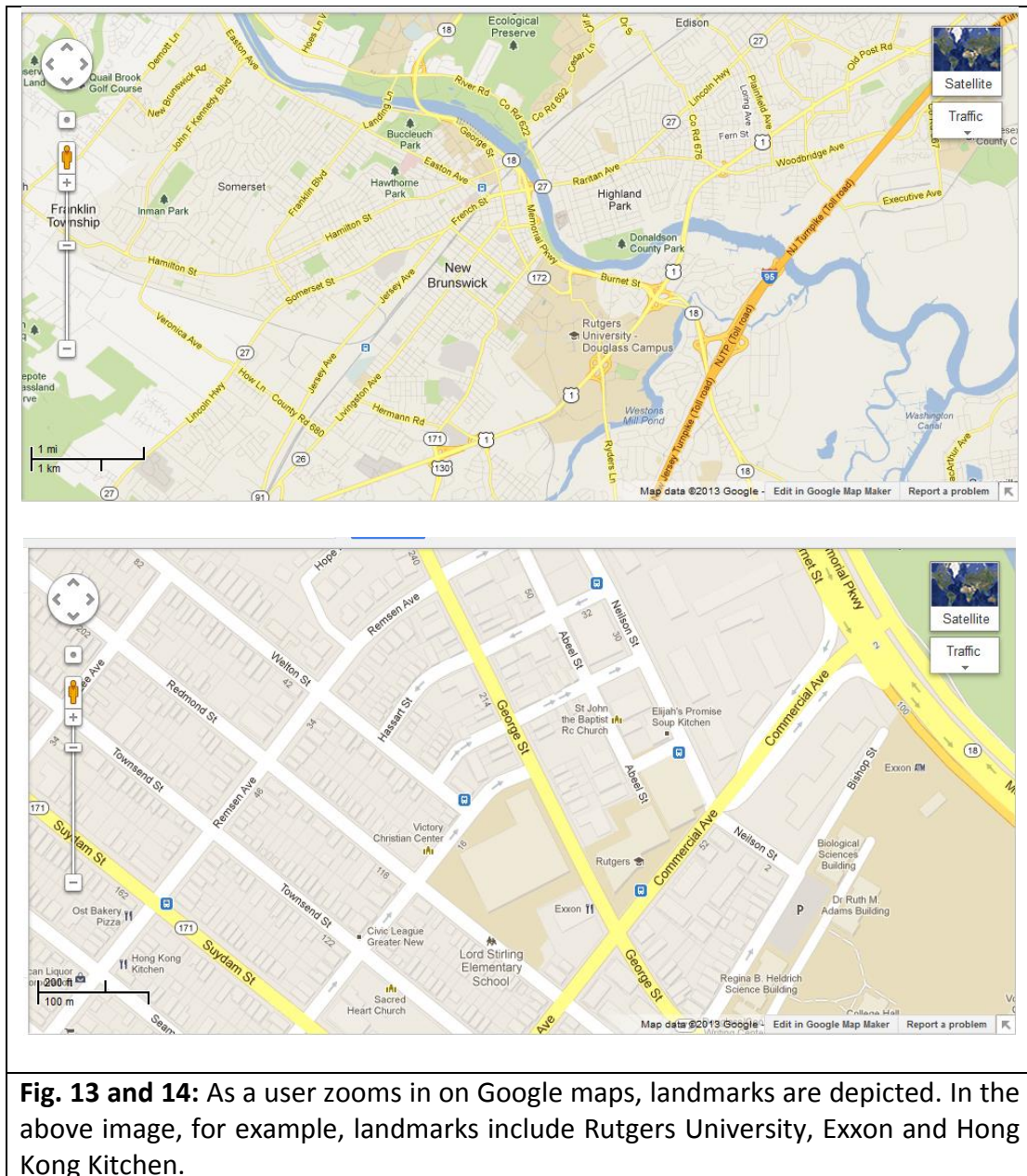
Fig. 13 and 14: As a user zooms in on Google maps, landmarks are depicted. In the above image, for example, landmarks include Rutgers University, Exxon and Hong Kong Kitchen.

In her study on how the London tube map shapes perceptions and discourse of city space, Vertesi (2008) described the conceptual dominance of a highly institutionalized map in everyday interactions among Londoners. Yet at least in the case of the London underground, changes in the maps can be tracked over time – indeed, as Vertesi pointed out, the tube map is a highly controlled image – and there

is a clear logic for tracking progressions of what goes on the map and what does not. In contrast, Google maps offers no assurance of stability nor a mechanism for tracking what is on or off the map. One can create individual maps (although none of my participants had done so) but not alter the landmark features that Google decides to display in response to a query. Are there consequences, in terms of how we perceive or expect to perceive urban space as a result of constant exposure to these landmarks every time we look to Google maps? The extent to which such shaping of a city's imageability draws from online maps in face could be intensified by moments of looking to Google maps explicitly for directions and implicitly for notions of how city space looks. Future research could investigate connections between online maps and perceptions of city space. This type of research would foster understanding as to the extent to which use of online maps may or may not be reshaping how people perceive and orient themselves in city space. Analysis of landmarks and online maps would also be a fascinating project for investigations of differences in how urban, suburban and rural spaces are perceived and mapped. Do differences between urban, suburban and rural neighborhoods manifest themselves in terms of landmarks rooted in navigation versus personal or affective connection?

Online maps and routes. A second implication that surfaced in thinking about transnational use of Google maps is to question whether its use stands to homogenize routes for navigating urban space. Many participants voiced a kind of fatigue with Google maps even as they relied on it, wondering if it limited their engagement with city space. From these accounts, a tradeoff emerges between short-term convenience (avoiding lostness, as well as a vulnerable display of newness) and long-term familiarity with urban space. I identified wandering as practice that contrasts with the

use of online maps like Google. Participants typically used Google maps to plot a route between two definite points, a route to which they generally adhered quite strictly, for fear of being lost, or at least late, should they stray. Conversely, wandering involved setting out not having a defined route, with the agenda of learning about a particular neighborhood or scouting out a route for a future trip. These two practices do not fall neatly along a technological divide. Some participants who did not own smart phones (like Kiki and Agnes) described checking Google maps before leaving the house, printing or jotting down direction and then following them to the letter. Some descriptions of wandering (Like Julio and Rob) referenced using Google maps and smart phones as part of their wayfinding, but these consultations of Google Maps were described as complimentary to a sense of exploration (confirming a location, noting nearby streets or subway stops) rather than finding a route to follow.

One reading of Jacobs' (1960) seminal text on urban policy is as a treatise of encouraging socializing of urban inhabitants through infrastructural changes such shortening city blocks and diversifying business. What changes to the infrastructure of online maps could facilitate the same results? Or from a de Certeauian (1984) angle, how can we encourage and preserve individual tactics when institutionalized strategies of navigating space are so popular, convenient and useful? Perhaps in addition to a public transportation mode, walking mode and bike mode, users could opt into a wandering mode[38]. Rather than prescribing a route, online maps could be based on documenting (rather than prescribing) movements through space, a model of production rather than consumption, activity over passivity. In thinking about what a wandering mode would look like, it's instructive to consider some of the more

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[38] I'm grateful to Aram Sinnreich for suggesting this term.

theoretical conceptualizations of map-making. For Deleuze and Guattari (2000), the map is rhizomatic, not a process of replication but of creative production:

> The map is open and connectable in all of its dimensions; it is detachable, reversible, susceptible to constant modification. It can be torn, reversed, adapted to any kind of mounting, reworked by an individual, group, or social formation. It can be drawn on a wall, conceived of as a work of art, constructed as political action or as a meditation. (p. 12)

Many of these same tropes – of complexity and flexibity - are evident in Lynch's (1960) description of city imageability:

> The form of a city or of a metropolis will not exhibit some gigantic, stratified order. It will be a complicated pattern, continuous and whole, yet intricate and mobile. It must be plastic to the perceptual habits of thousands of citizens, open-ended to change of function and meaning, receptive to the formation of new imagery. It must invite its viewers to explore the world. (p. 119)

In contrast to these conceptual descriptions of mapping as tools of creativity and flexibility, online maps were referred to by participants as tools of efficiency and uni-dimensionality. The maps that Deleuze and Guattari envisioned have far less in common with Google maps and far more in common with the individualized and improvised routes of wandering. From a design standpoint, participant accounts of wandering suggest that online maps provide functionality that facilitates wandering. Such tools would emphasize flexibility, reworking and connectivity. Possible functionality could include sharing routes, mechanisms for storytelling and game-playing, as well as the ability to craft, shift and alter boundaries and landmarks. These tools are much more in keeping with the practices of spatial familiarity analyzed in this chapter. The idea of using maps to reflect individual rather than institutional encounters with space is not new (See Chicago Public Media & Glass, 1998), but both the increasing sophistication and prevalence of online maps makes it possible to consider how online tools can better facilitate individualized paths through city space

that produce social interactions as well as spatial familiarity, as opposed to the current emphasis on efficiency and saving time.

Implications for Design: Games of Socio-spatial Play

I want to transition here from a specific discussion of online maps to a discussion of locative media games and urban space. In particular, I'm interested in outlining possible uses for online games in fostering interaction between urban inhabitants in ways that directly engage space as active and co-constructed with social practice, rather than an inert backdrop. Much of the academic work on locative media focuses on artistic possibilities (e.g. Prieto, 2008; Wilken, 2010), potential for civic engagement (e.g. Iveson, 2009; Schroeter & Foth, 2009) and fostering interpersonal interaction (e.g. Sutko & de Souza e Silva, 2011). But what about initiatives that foster a greater awareness of or sense of play in city space, finding new neighborhoods and possibilities of navigation and wayfinding? Some games already point in this direction, such as geo-cacheing in which players compete to locate trinkets that have been left at specific coordinates. Within the bike community (particularly among bike messengers) there are alley cat races, a combination of an obstacle course and scavenger hunt, where cyclists rely on their knowledge of city space to choose the best route between the two points, while completing a set of tasks. These competitions hinge on navigation of space and use of technologies, but don't necessarily facilitate substantive social interaction within their respective communities, let alone with strangers. This is not to say that these two forms of spatial play don't offer vibrant community interactions, at least potentially, only that competitions are typically individual, or if on teams, tend to be with friends and acquaintances. What technological forms of play could foster social interaction among strangers and within

space? Keeping in mind Massey's (1995, 2005) definitions of space and place, what games could generate interactions that transition the former to the latter?

To cite just a few examples emerging in the genre of games I'm suggesting, projects like Hakim Bey's Temporary Autonomous Zone and the SFZero collective, which encourage encounters and collaboration among strangers, point in this direction. Ingrid Burrington's project analyzing Craigslist Missed Connections deepens an awareness of strangers (almost) interactions as tied to space (See Doll, 2011). I gather all of these technologies under the label socio-spatial technologies, in that they emphasize the inter-related nature of space, social interaction and technology. In a way, these technologies channel Situationist philosophy, which encouraged artists and theorists to draw on everyday surroundings to create alternative experiences of space and social encounters. For Situationists, play constituted a form of critical thinking and a way of countering dominant behaviors and narratives of urban space (McDonough, 2004). Similarly, social spatial games offers a means of disrupting norms for city life, where the increasing popularity of mobile technologies provides a means of enabling improvised, interstitial play.

Given the burgeoning increase of apps[39], tools and mash ups related to urban space and social interaction, I want to suggest a framework for identifying existing and emergent games for socio-spatial interaction. Embedding games into infrastructure shared by a diverse group of people could foster a sense of convergent experiences

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[39] From a Marxist standpoint, one could argue that although the gamification of learning about city space through scavenger hunt like apps are useful means of learning about one's surroundings, there is a troubling Capitalist framing in the pay-to-play and points or prize based elements undergirding many of these games (Rosenbloom, 2013). For an analysis of how gamification of travel and space in reality television shows (like the *Amazing Race)* has played out in neo-colonialist ways see Steeves (2008).

within collectively-constructed space. Socio-spatial games would include the following criteria:

- Documenting everyday rather than extraordinary experience of moving through city space.

- Fostering interaction between strangers and moreover across a diverse group of inhabitants.

- Allowing for layered storytelling such that documenting could be revised, reappropriated, edited and reconfigured over time and by a variety of users.

- Inclusive of a wide range of technologies, and moreover using a broad definition of technologies.

These criteria draw together the key points of social-spatial play: interaction between people and space, legitimizing a diverse range of perspectives and experiences, and privileging individual experiences of space over institutional ones.

Asked about the importance of playing games with strangers in urban space, Ian Kizu-Blair (from the San Francisco-based collective SFZero) explained:

> Oftentimes the players report that they have a completely different experience of the urban environment as a result of playing and go to places in their city where they have never been before. There is a cinematic quality whereby players live out experiences that normally exist only in spy movies - chases down dark alleys, chance meetings, etc. (Quoted in Ferraiolo, 2010)

The ability of games to institute a sense of surprise with surroundings that are typically mundane, suddenly strange instead of predictably recognizable, returns me to a central objective of my investigation, which is to use the experiences of city newcomers to reconsider and rework perceptions of city space and infrastructure that might otherwise remain static.

The Utility of Transnational Vantage Points: Limitations and Suggestions for Future Work

In this chapter, I have suggested implications for HIB theory and urban policy and technology, as well as design for tools of navigating city space. As newcomers, participant experiences make it possible to understand how people make sense of city space as a process, rather than perceptions of city space as they already are. From this vantage point, it becomes possible to analyze the inter-relatedness of social interactions and technologies deployed in in everyday urban life. I conclude with a discussion of limitations of my approach to studying transnationalism and ICTs, followed by some suggestions for future research.

As with most qualitative research projects, the results of my analysis were not intended to be generalizable, either to urban newcomers writ large or transnational newcomers in specific. My objective has been to think of transnational newcomers in New York as occupying a vantage point from which to investigate the inter-relatedness of people, technology and urban space, drawing predominantly on HIB theory. To that end, I developed analysis of the information practices used to become familiar with city space, newcomers' relationships to space, and the connections between technology and identity work. To the extent that these findings are transferable, I hope that much of my analysis would resonate with newcomers to other urban areas, perhaps particularly findings in Chapters 3 and 4, which focused on navigating and relating to city space. Findings in Chapter 5, specifically the section online identity work, are likely applicable to transnational migrants in urban areas and elsewhere.

In terms of methodology, this project could have been set up differently to concentrate on other facets of transnationalism and urban informatics. I deliberately

sought out a heterogeneous population of participants in order to track practices that emerged across backgrounds and nationalities. As a consequence, my findings cannot speak in an in-depth way to differences between transnational migrants from a particular country, or indeed those who share a similar economic status, profession or religion. Of the qualitative and ethnographic work on urban transnationalism that focuses on a particular nationality (e.g. Kim, 2008; Lew, 2004; Levitt, 2000), the use of technology and information remains understudied (Caidi et al., 2010), and future work could address this gap, looking to identify technologies tied to a particular nationality or background, such as HeyKorean, a website described by several participants in this study as "the Korean version of Craigslist." For Korean transnational folk with whom I spoke, HeyKorean was described as an important resource for learning about New York, and an in-depth study of its uses and drawbacks could provide useful insights for theory on transnationalism and ICTs as well as the design of online platforms geared towards a particular nationality.

Another limitation of my study was the confined scope of analyzing transnational experiences in a single geographic area, New York City. On the one hand, New York is an incredibly diverse city with the largest immigrant population of any city in the United States (see Appendix 5 for statistics on immigration in New York), making it a logical site for investigating transnationalism. At the same time, the very popularity of New York City as a destination for transnational migrants presents a possibility that it is somewhat singular in providing a cosmopolitan frame for transnational experience (Kasinitz et al, 2008). I touch on some of these issues in Chapter 5 as part of the discussion of using locative media to gain status in one's peer group. As well, the fear of being labeled a tourist is perhaps heightened or uniquely

fostered in New York, as other projects related to HIB and transnational migrants in other large cities have not reported similar findings (Caidi, personal communication). A comparative study of transnational newcomers in two (or more) cities could have allowed for a more developed analysis of the role of space in constructing identity, and could draw out some of the nuanced distinctions between urban spaces in terms of how localized, socio-cultural norms shape experiences of transnationalism and, more specifically, socio-technical assemblages.

Participants in my study pointed to socio-technical contradictions of SNS, which on the one hand allow people to maintain social ties, and on the other can render the maintenance of those ties so complex and frustrating that it becomes tempting (and sometimes necessary) to break off connectivity. Future research could focus more explicitly on these tensions, which would provide a technological angle to analysis of social remittances (Levitt, 2001), or the flows of information that circulate among transnational communities. Rather than focusing on newcomer accounts of SNS use as I've done here, one could follow flows of information as they circulate across a transnational network. Rouse (1999) argued that a binary notion of immigration should be replaced with an idea of circuits, reflecting the fluidity and repetition at work in transnational movements of people across various geographic borders. A similar shift in thinking about circuits of information could provide a more holistic understanding of transnational use of ICTs from the perspective of information itself rather than people. How do reputations of cities and neighborhoods circulate, shift and shape expectations of those spaces? As well, my analysis of SNS focused on Facebook, but future work could interrogate how other SNSs (such as online dating sites, professional networking sites and sites based on subcultural affinity) fit into

experiences of transnational migration. This kind of research could add to existing knowledge on transnationalism and ICTs, as well as informing design on SNS geared towards a transnational audience.

Another venue for future work could take up the tension I've identified between wandering and online maps. In Chapter Three, I noted the extent to which maps have proliferated across a number of everyday processes of moving through space, as well as across a spectrum of technologies. In my analysis, I argued that even as maps are highly personalized, insofar as they are able to accompany individuals across a range of personal technologies, they do not necessarily lead to a sense of personalized knowledge of or engagement with space. Future research could examine how different approaches to navigating space shape perceptions of urban environments. One means of addressing this issue would be to interview people whose professional lives require them to navigate city space, such as delivery people, ambulance drivers and utility employees. What cartographic practices emerge in navigating urban space? What acts of spatial translation take place in shifting from the abstraction of a digital map to the grounded realities of the street? How are tactics communicated to others and (more provocatively) subsumed into institutional strategies? Following Levy's (forthcoming) work on how truck drivers respond to technological monitoring of their movements on behalf of their employers, is it possible to maintain a sense of individual agency against the Taylorist pull of institutional surveillance and efficiency? Within these communities of practice, what are the spatial articulations of resistance? Addressing these questions could contribute both to urban studies scholarship on how technology shapes relationship

to space as well as to HIB theory on the boundary (or lack thereof) between everyday and professional information behavior.

In my introduction, I noted that issues of immigration, globalization, information access and rapid technological change converge in the experiences of transnational newcomers to a city. As such, my objective has been to use qualitative analysis of these experiences in a way that simultaneously considers particular facets of this phenomenon in depth while acknowledging their inter-relatedness.

Appendix 1: Participant Descriptions

Of the dozens and dozens of transnational migrants I encountered at my recruitment sites, I interviewed 18. Below, I've reproduced the participant details table from chapter two, combined with more detailed descriptions of people interviewed for this project. As well, for participants who drew maps of their neighborhoods (everyone but Luka and Julio), I have included an image of their respective participatory maps.

Participant Details					
Name	Age	Nationality	Neighborhood	Length of time in NYC	Recruited from
Alice	26	Australia	Bedford Stuyvesant	18 months	PN
Amelie	27	France	Flatbush	2 weeks	BPL
Araceli	29	Mexico	Jackson Heights	7 months	ICNY
Cecille	33	Cameroon	South Bronx	2 years	ICNY
Ishmael	42	Togo	South Bronx	6 months	ICNY
Julio	~60	Dominican Republic	Bushwick	9 months	BPL
Jorge	29	Spain	Washington Heights	6 months	ICNY
Juan	37	Uruguay	Ridgewood	3 months	ICNY
Kiki	32	Japan	Fort Greene	1 year	ICNY
Lalo	35	Chile	Greenpoint	4 months	BPL
Laura	34	Brazil	Astoria	1 year	ICNY
Luka	29	Georgia	Midwood	2 years	ICNY
Miao	36	China	Kips Bay	1 month	ICNY
Midori	38	Japan	Midtown	3 months	ICNY
Nalan	32	Turkey	Riverdale	2 years	ICNY
Noely	32	Venezuela	Jersey City	1 year	ICNY
Raul	22	Honduras	Westchester	18 months	ICNY
Rob	28	Puerto Rico	Clinton Hill	1 year	PN

Table 4: Details on participants interviewed in this dissertation.

Alice – I met Alice while she was working as a barista at a coffee shop in the East Village. Wanting to bring in the transnational experience of a English speaker, I asked Alice if she'd be willing to participate in an interview and she agreed, although it took several months (mostly due to my leaving the country for three months) to

arrange a meeting. Despite the shared language and (at least to an extent) shared Western culture between the U.S. and Australia, Alice expressed feeling like a cultural outsider in New York, even after a year. Her experience most resembled Kiki's in that they both married New York City natives, and felt largely dependent on them for making sense of the city, for example, deciding where to live, determining which neighborhoods were safe.
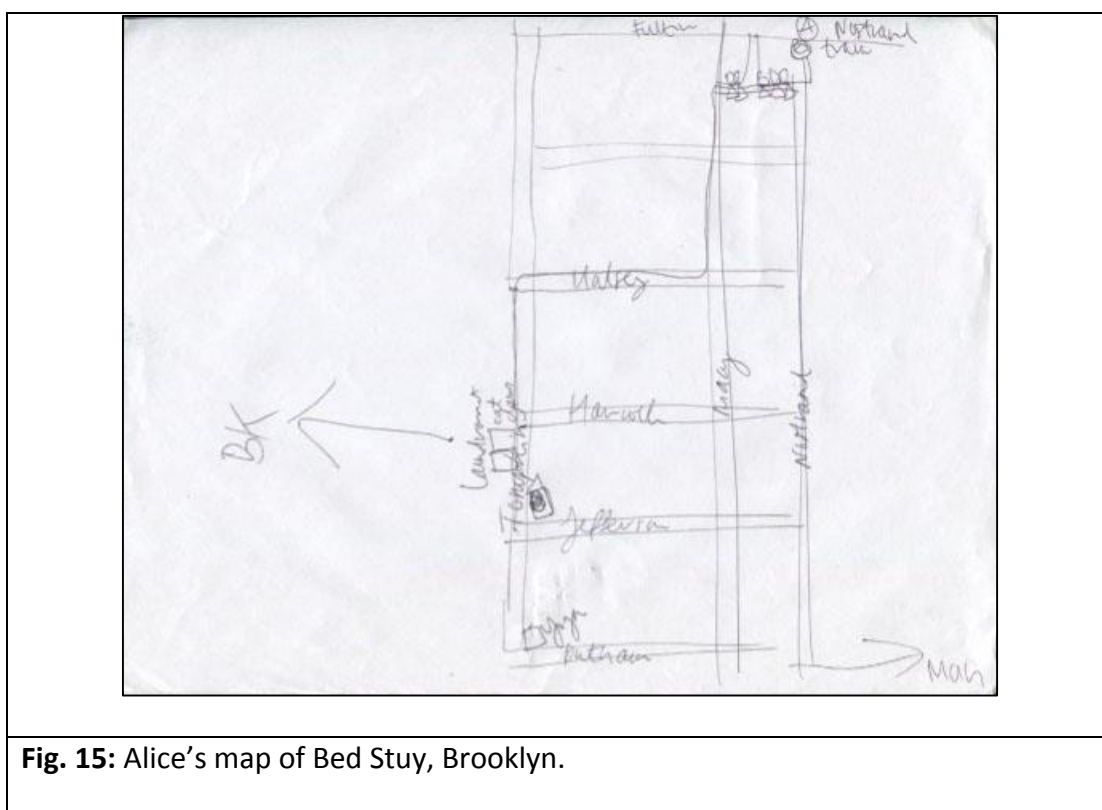

Fig. 15: Alice's map of Bed Stuy, Brooklyn.

Amelie – I met Amelie while recruiting at a friend's ESL conversation group at the Central Branch of the Brooklyn Public Library. I was able to interview Amelie on the spot, and learned that she was two weeks into a six-month stay in New York. I met with her several times (including attending her goodbye party), such that I was able to get snapshots of her impressions of New York over the course of her time in the city. In Paris, Amelie worked in the art world, and she spent a great deal of her time in New York going to (and occasionally volunteering at) museums and cultural events. Unable

to work legally because of her tourist visa, the bulk of Amelie's time was spent taking

advantage of free activities in the city, including ESL courses.
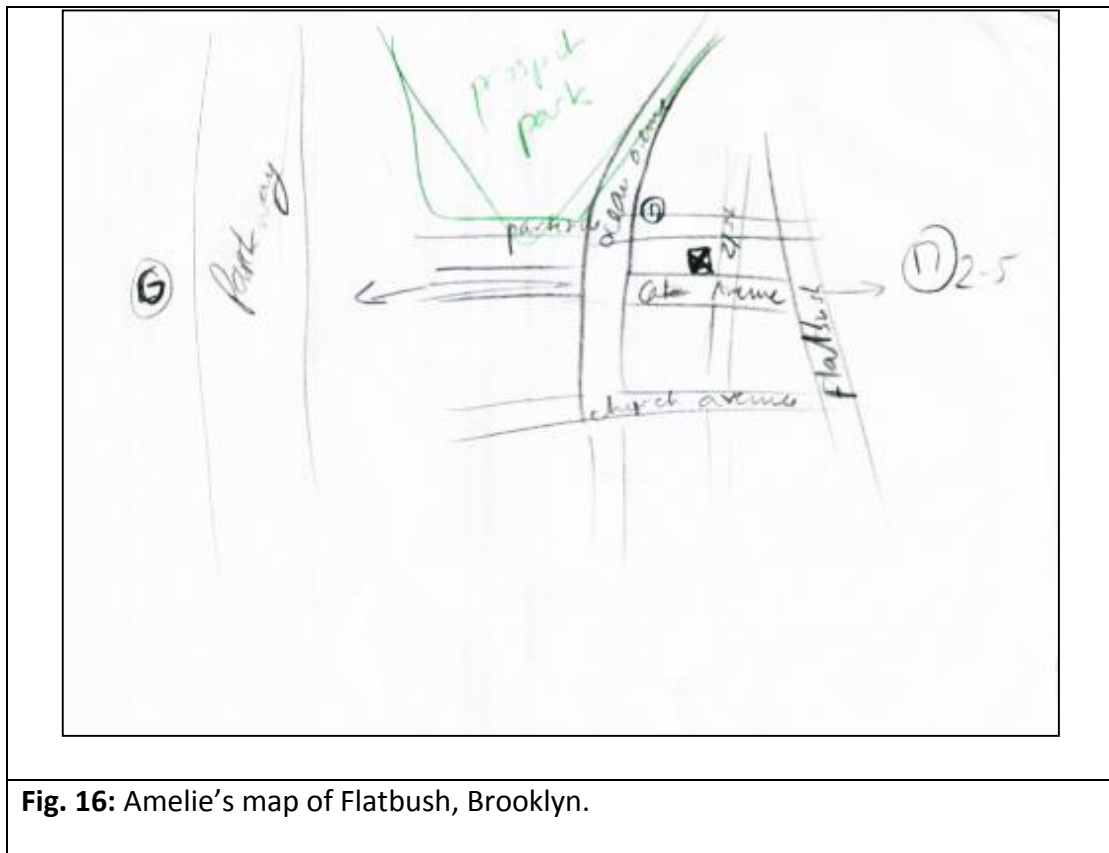
Fig. 16: Amelie's map of Flatbush, Brooklyn.

Araceli – Araceli responded to a flyer at the ICNY, and I met with her repeatedly

over the course of four months. Araceli moved from Mexico City to New York after a

relationship with her long-time boyfriend ended. Although she spoke excellent

English, Araceli became a member of the ICNY in order to improve her accent, which

she felt necessary to pursue a career in public relations. In the meantime, Araceli

worked as a hostess at a restaurant in Manhattan.
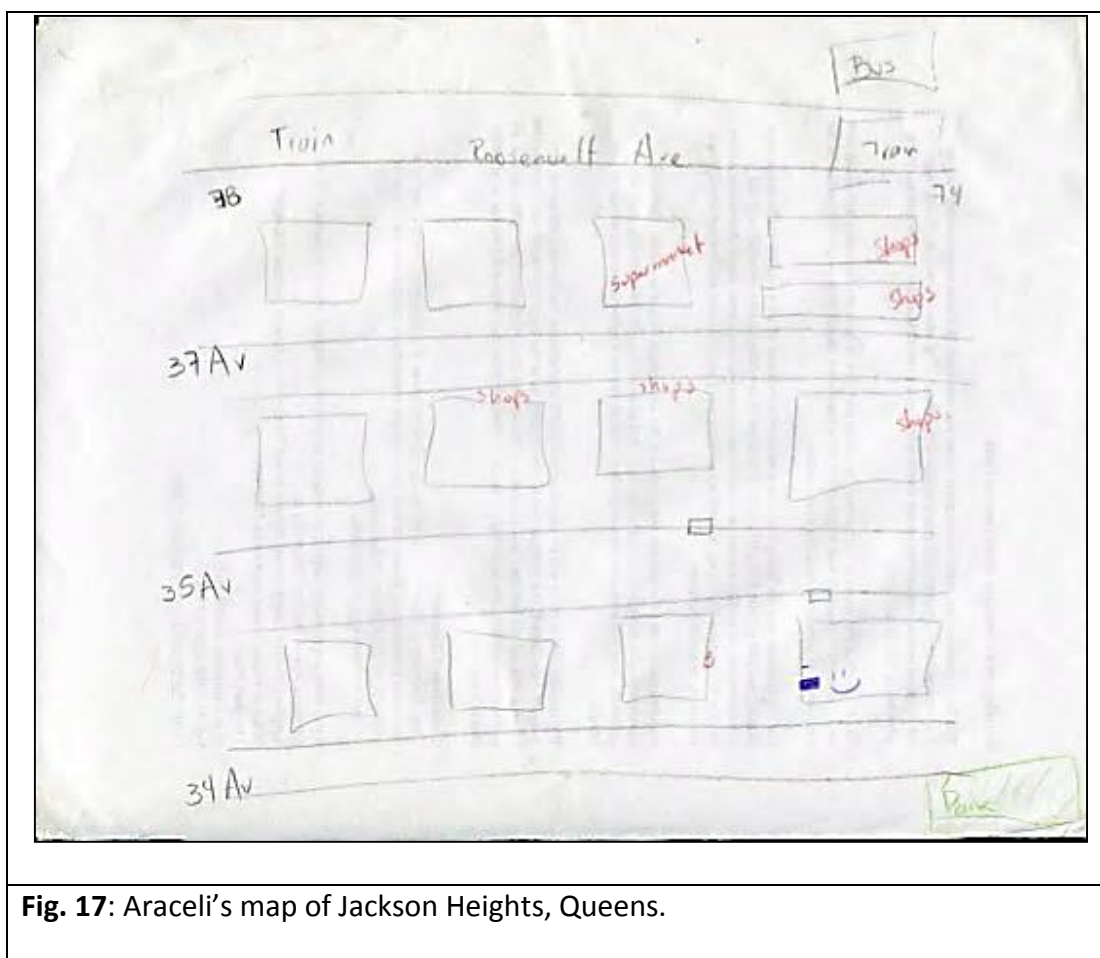
Fig. 17: Araceli's map of Jackson Heights, Queens.

Cecille – In addition to volunteering as a conversation partner at the ICNY, program coordinators approached me about helping out with a book club at the Center. I co-lead the book club (which was in fact more like a short story club, as I discuss in the later section on research sites) with Cecille. After working with Cecille for a few weeks, I asked if he'd be willing to participate in an interview. Cecille was ambitious and driven, hoping to pursue graduate work in math. I actually found it somewhat difficult to collaborate with Cecille on the book club, as his personality is very assertive. Nonetheless, I was thrilled for him when he was accepted to a PhD program in math at a large university in the Midwest. We've kept in touch since he left New York to begin his PhD work, occasionally comparing notes about graduate life.

Fig. 18: Cecille's map of the South Bronx.

Ishmael – After casual conversation with Ishmael at the ICNY, I asked if he were

willing to participate in my project. Very early on in our acquaintance, Ishmael told me

of his application for asylum to the U.S., which was eventually approved. A devout

Muslim, Ishmael was estranged from his wife and daughter back in Togo. In New York,

he lived in the South Bronx, which hosts a growing population of transnationals from

different parts of Africa. Legally prohibited from working until his asylum case was

decided, Ishmael spent a significant portion of time (at least during the period when I

knew him) volunteering at a roof-top farm in Queens, which I visited. The farm

provides lunch-time meals for volunteers and I wondered whether or not the meal

was a large part of Ishmael's interest in volunteering. Because mosques seemed to

form such a vital part of his information network, I asked Ishmael if he would take me

to a mosque where he worshipped. He agreed, and seemed somewhat excited about

the prospect of introducing me to his faith. Attending prayers with Ishmael was a very anxiety-ridden process for me, as Ishmael had given me very little information about what to expect and I felt very much like an interloper. As a whole, Ishmael seemed to me to be very socially isolated, with no family in the country and a social network limited to his mosque. I eventually became concerned that Ishmael was growing decidedly attached to our conversations, eventually reaching the point where I had to intervene with a reminder of my status as a researcher. Although Ishmael responded that he understood the boundaries of this relationship, he continued to contact me via email frequently (sometimes daily), to the point that I eventually had to stop responding. He was the only participant for whom such measures were necessary.
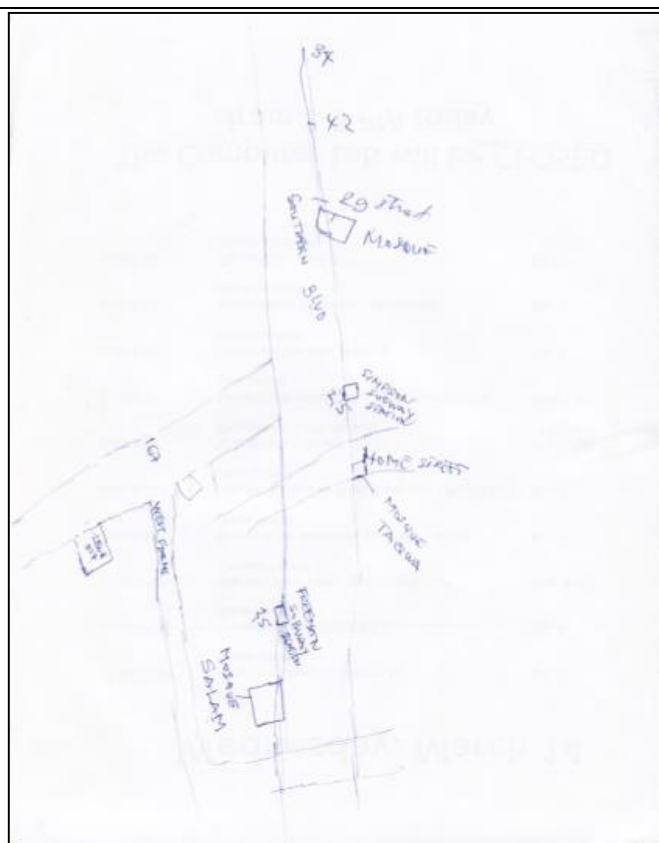

Fig. 19: Ishmael's map of the South Bronx.

Julio – After approximately two months of attempting to start an ESL conversation group at the Bushwick public library, the volunteer coordinator eventually decided to send me elsewhere due to the minimal interest. The only participant I recruited from this location was Julio, from the Dominican Republic. Julio was in his early 60s, and had moved with his wife a few months before I met him. They lived with Julio's daughter and her children in a two-bedroom apartment in Bushwick. His daughter worked at a nearby bodega and although he said that his wife had an active social life in Brooklyn, he felt somewhat isolated. Julio's English was among the more rudimentary of participants in this study, and combined with the lack of a work visa (Julio was in the country on a lapsed tourist visa) made it all but impossible for him to find a job. Julio was deeply appreciative of the free ESL conversation group at the library and I felt genuinely guilty when I told him that I'd no longer be able to meet with him.

Jorge - After being contacted by Jorge from an ICNY flyer, I eventually interviewed him twice (about six months apart), and enjoyed Jorge's no-nonsense, somewhat skeptical take on New York life. Jorge's wife was getting a master's degree at one of the CUNY branches, and after initially living in Bushwick, the couple settled in Washington Heights. Like Noely, Alice and Kiki, I suspected that a driving motivation for getting married had to do with visa issues, although Jorge and I didn't discuss the issue in detail. Through his wife's student visa, Jorge had a work permit, and was employed in IT at a small technology firm in Midtown. Although many of the transnational migrants I met (perhaps particularly Araceli and Rob) actively sought to separate themselves from other ex-pats, for Jorge, locating a Spanish community in New York was an important part of his social life. This isn't to say that Jorge didn't

have friends outside of his network of Spanish folk, but when I attended his 30th birthday party, it seemed that many of the attendees who weren't Spanish were from his wife's graduate program.
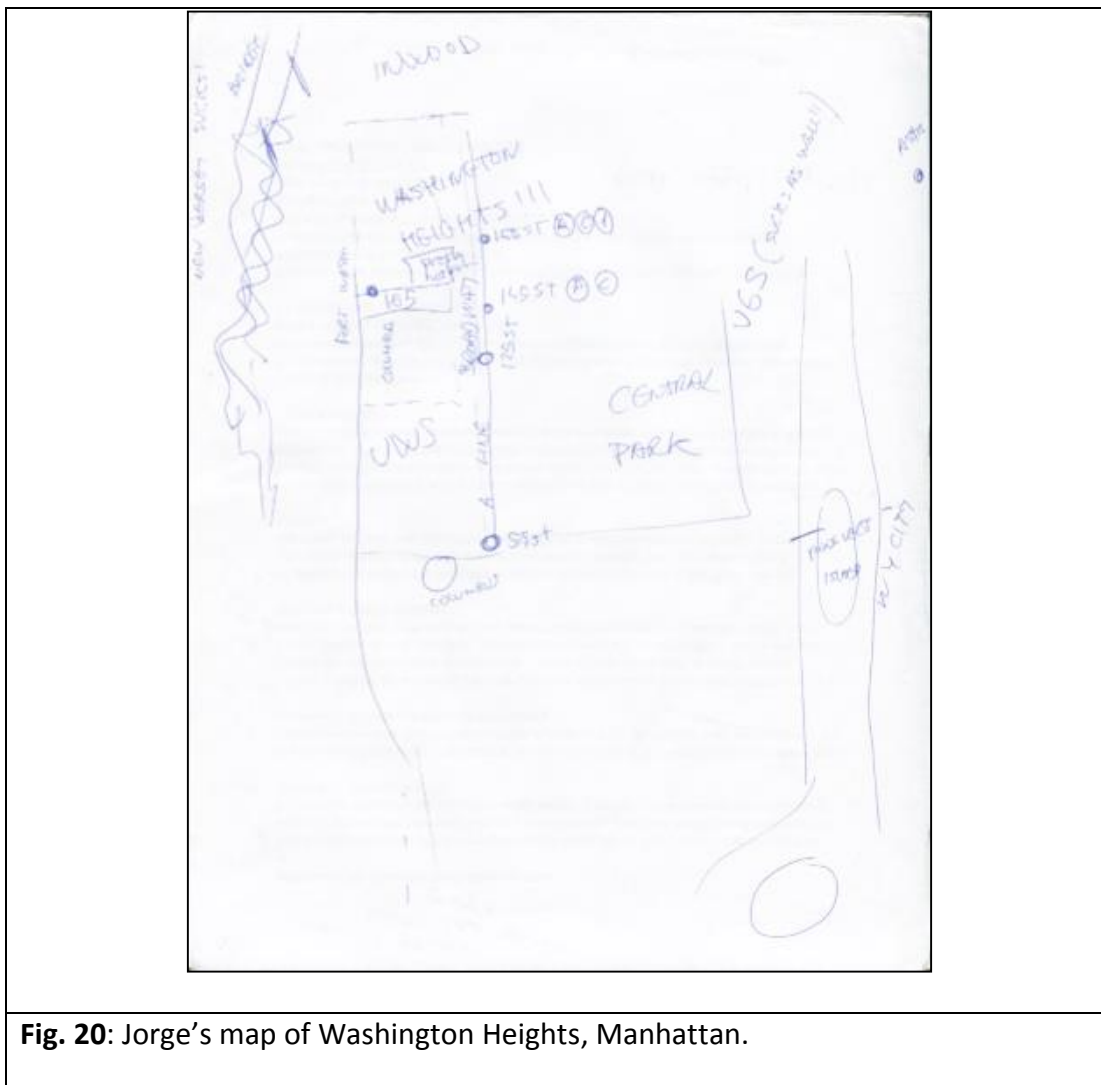
Fig. 20: Jorge's map of Washington Heights, Manhattan.

Juan – Noely introduced me to Juan, whom she'd met at the ICNY. During the emails that we sent back and forth to set up an interview, Juan voiced some nervousness about the interview, asking if he could have the questions ahead of time and if it would be okay for him to smoke as we talked. I tried to reassure him that the interview would be fairly low-key, that he wouldn't have to answer any questions he didn't want to answer, and that I'd arrange for us to meet at a place where he could

smoke if he wanted. During the actual interview, I was surprised how relaxed and calm Juan seemed in contrast to his apprehensive emails – if anything I had to rein him in from time to time to get back to the original question I'd asked. Juan moved from Uruguay to New York because his mother felt that he was getting into too much trouble, and Juan moved in with his father, who had been living in New York for many years and whom Juan had never met until he moved to the city. Although Juan and I spoke for nearly two hours and we conducted the conversation in both English and Spanish, I never felt that he was completely opening up to me. Although there were a few participants that I only met during our interviews (Kiki, Laura and Raul), Juan was the one participant I felt I could have learned much, much more from had I met him first through ESL work and then set up an interview.
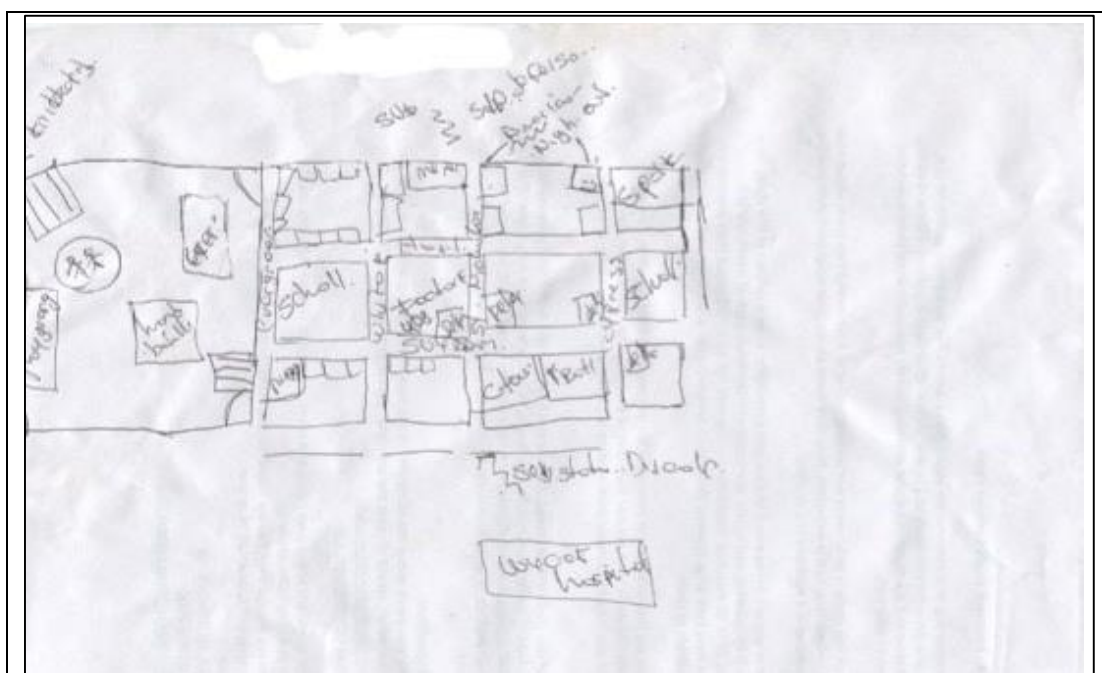

Fig. 21: Juan's map of Ridgewood, Brooklyn.

Kiki - Kiki contacted me via the flyer at the International Center. Professionally, Kiki worked with children – she ultimately wanted to be a teacher but felt she first had

to improve her English. In the meantime, Kiki worked as a nanny for parents who wanted their children to learn Japanese. Kiki's husband was ethnically Japanese, but had lived in New York for a number of years and like other transnational folks I met with native spouses, Kiki seemed somewhat dependent on him for information about the city. Kiki was one of the most avid library users I encountered, and she had a regular rotation of libraries that she visited with the children in her care.
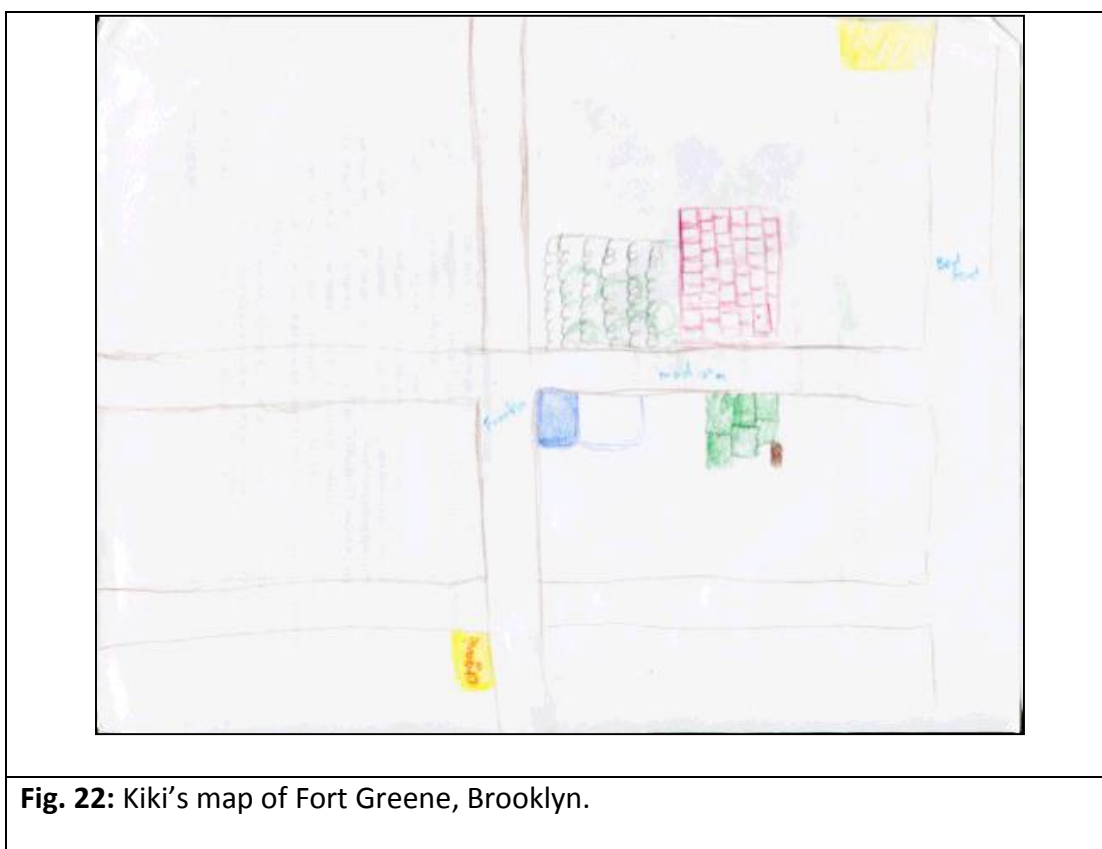
Fig. 22: Kiki's map of Fort Greene, Brooklyn.

Lalo – Most of the patrons at the Greenpoint library were Polish, and the only non-Polish speaker in the conversation group where I acted as a substitute volunteer was Lalo, from Chile. He drew an income from work as a mechanic and construction worker, but considered himself primarily an actor, photographer and aspiring writer. In conversation, it seemed that Lalo's social network drew primarily from friends in his thespian community. Lalo was also an avid cyclist, although he primarily confined his

bike riding to Brooklyn and we spent some time exchanging tips on where to ride in New York.
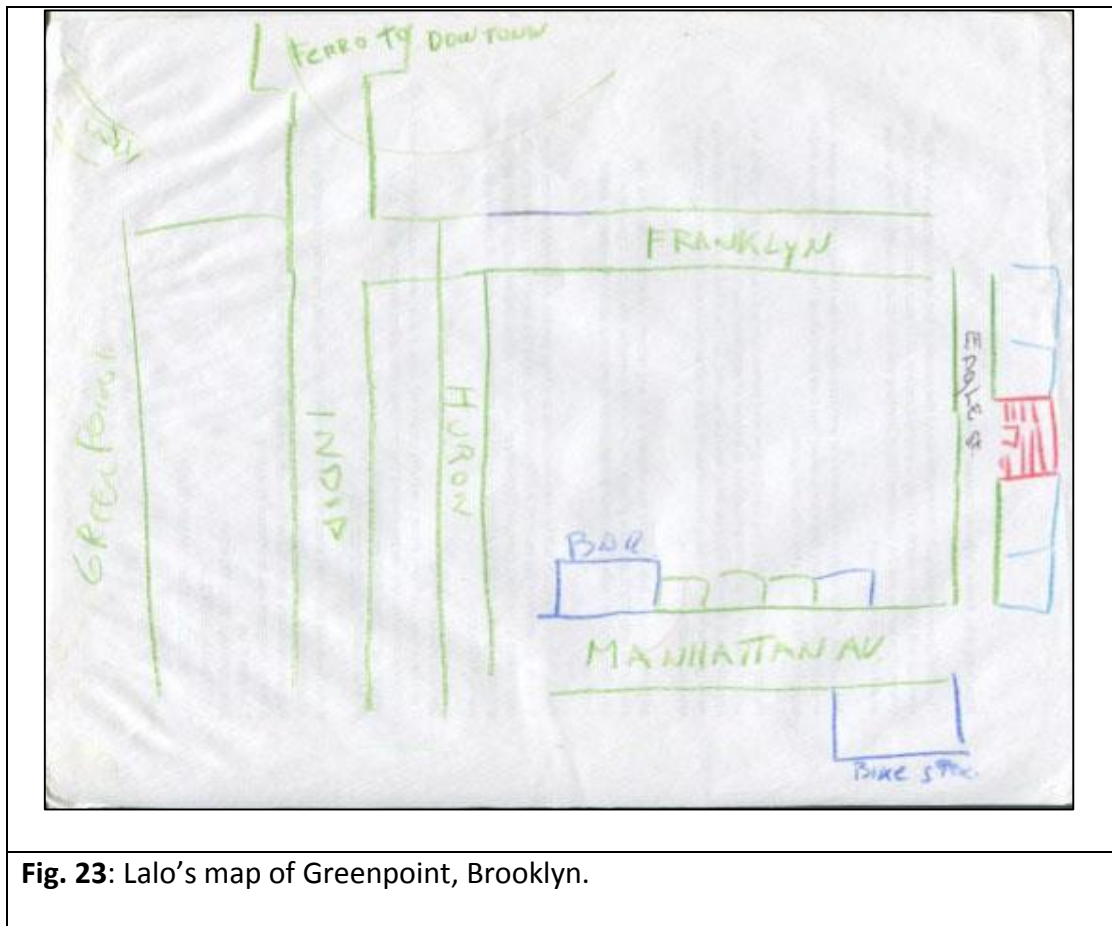
Fig. 23: Lalo's map of Greenpoint, Brooklyn.

Laura – I met Laura through the ICNY short story club – after making an announcement at the end of class about wanting to talk to people about their experiences moving to New York, Laura volunteered. We conducted the interview on the spot, and Laura very quickly opened up about her decision to move to New York after her husband of 12 years asked for a divorce. Laura was an upbeat, very determined woman – in her work with NGOs in Brazil, she spent about two years working and living in the Amazon. She referred to her repeated visits to New York as "seasons" – the first season being a few weeks, and the latter two being several months, all within a calendar year. Interestingly, Laura's visa status shifted across

these iterations, coming once as a student and twice as a tourist. Laura had also lived in different boroughs of New York for each of her visits – first in a hostel in Sunset Park, Brooklyn, then in an apartmeet in Midtown Manhattan and at the time of our interview, in Astoria, Queens.


Fig. 24: Laura's map of Astoria, Queens.

Luka – The first interviewee in this project was Luka. As my conversation partner for approximately six months, I came to know Luka fairly well. He had been living in York for approximately two years, always in Brooklyn, although he preferred Manhattan as a place to go out. On the whole, I found Luka somewhat antagonistic – we often got into debates that included topics from being vegetarian to the merits of democracy. On a lighter level, I sometimes struggled with his dismissal of Brooklyn (where I've lived for six years) as a "boring" borough, on a darker level, it was difficult not to react strongly when he described (without detectable traces of disapproval on

his part) practices of extreme violence against queer folk in his native Georgia. Although our encounters as conversation partners were always friendly, our interview was very difficult – I made an early stumble by asking Luka if he lived alone or with roommates, at which point he very irritatedly said he lived with a girlfriend and asked how that could possibly be important for me to know. Our interview never really recovered, and although it yielded several useful insights for this project, many of the references that I make to Luka in the dissertation come more from anecdotes gleaned from our conversation partnership.

Miao – Miao was the first person to contact me from the ICNY flyers, and I felt lucky to interview her within the first two weeks of her moving to New York. Miao was enrolled in an accounting program in New York, and she hoped to stay in the city after graduating. An enthusiastic participant, Miao always responded quickly to emails and seemed to enjoy showing me around Chinatown as she ran her errands. Like a number of non-native English speakers I've encountered (and as I myself have felt in trying to become proficient in Spanish), Miao felt frustrated at her difficulties in attaining language fluency, eventually coming to feel she'd reached a plateau in her speaking abilities. Also similar to the majority of transnational migrants I've met, Miao was both surprised and enthused when I was able to recite basic facts about her country, such as the current and former prime minister during a conversation about politics.
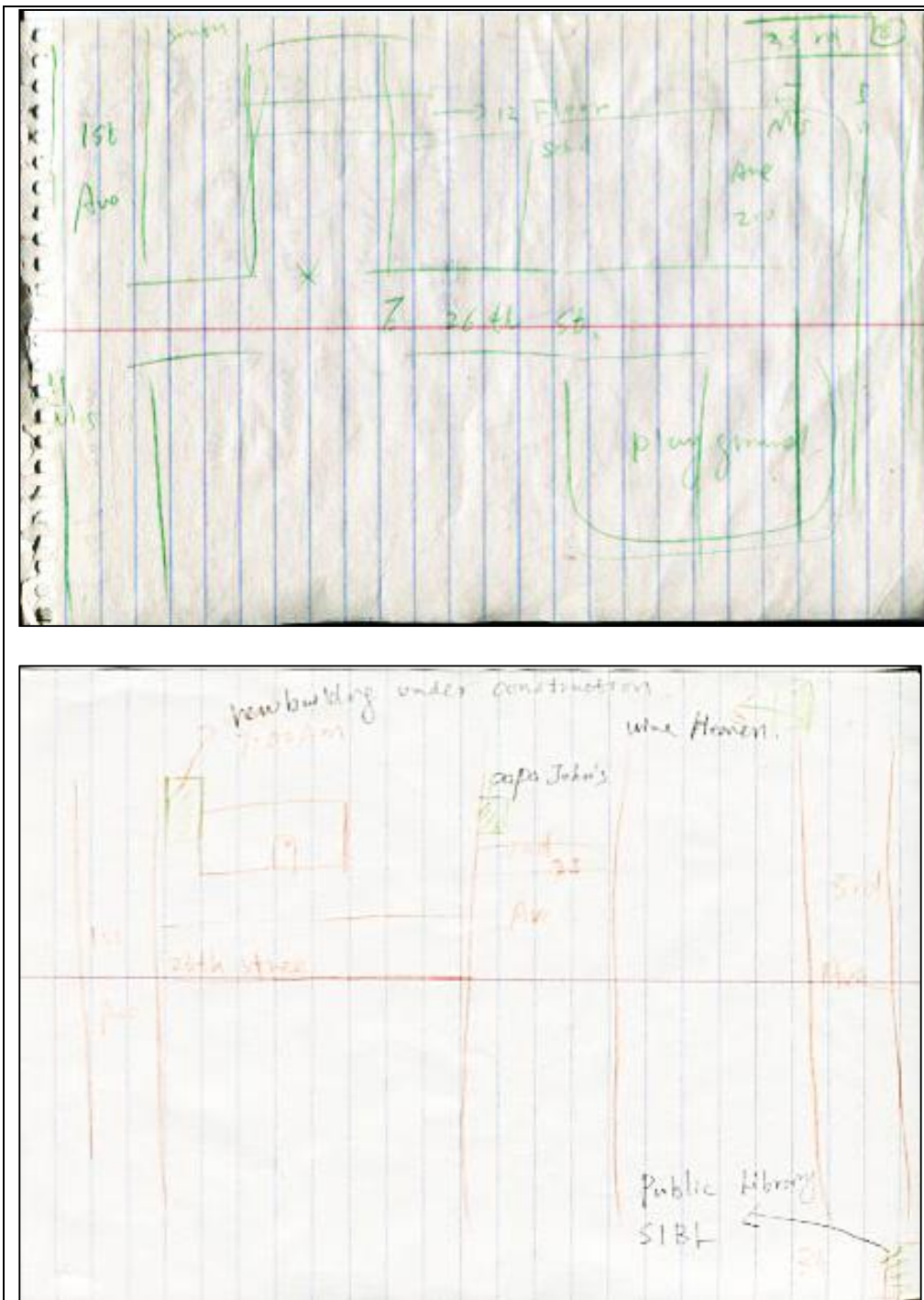
Fig. 25 and 26: Miao's maps of Kips Bay, Manhattan.

Midori – After several months of meeting with Midori as a conversation partner at the ICNY, I asked if I could interview her for my dissertation research. As a post-doctoral fellow at New York University, Midori was conducting her own research

at the time, and I think it was partly out of sympathy for recruiting participants that she agreed to our interview. In many ways, Midori represents the upper echelon of transnational migrants in terms of socio-economic status, given her official visa status and well-paid job. At the same time, Midori was fairly isolated in the city and didn't have much of a personal network in New York. Midori's Japanese husband made several trips to New York during her time in the city, but otherwise Midori's life seemed to revolve around her post doc work.
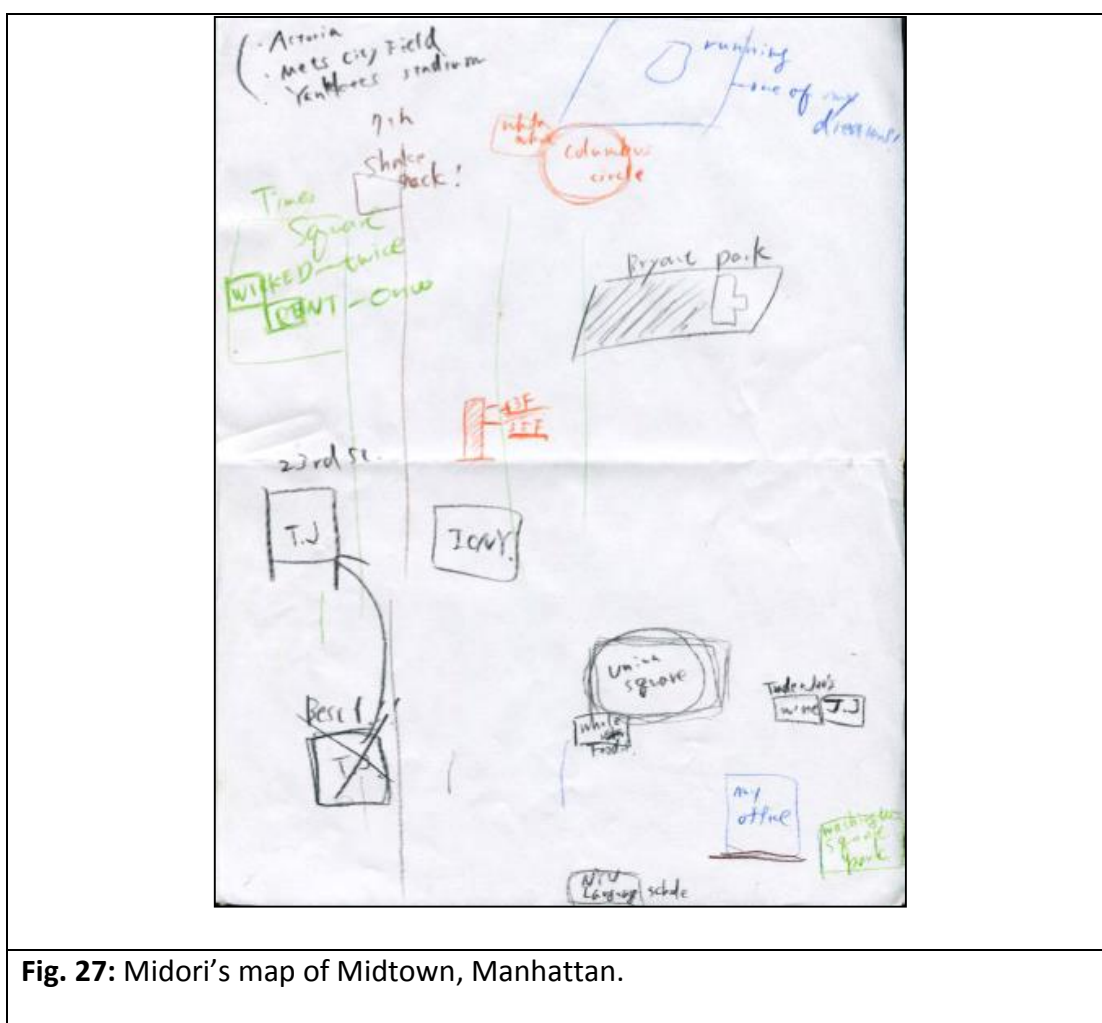
Fig. 27: Midori's map of Midtown, Manhattan.

Nalan – I interviewed Nalan after she contacted me from a flyer at the ICNY. Pretty, ambitious and articulate, Nalan had lived in New York for about two years and was currently unemployed, although she was optimistic about finding work in the

future. Like Laura, Noely and Cecille, Nalan considered herself a talented worker whose career in the United States was being held back primarily for reasons of language. For the entirety of her stay in New York, Nalan had lived in the Bronx, first with roommates and then with her husband, who was also Turkish (the two met in New York). During the interview, Nalan mentioned that her favorite neighborhood in New York was Astoria, and I asked her to take me on a walk through that neighborhood, which we arranged a few weeks later. Nalan and I visited a pastry shop and a grocery store where she was able to buy a number of Middle Eastern cuisine products that were difficult to locate in her own neighborhood. On the way, Nalan pointed out her favorite restaurant and the salon where she had her hair cut (it was important for Nalan to have a Turkish stylist because, as she commented, "we are very good with hairdressing, Turkish people."). Astoria is typically characterized as a primarily Greek neighborhood, so I was curious to see if any of the Greek-Turkish tension would play out in Nalan's description of the area, but instead Nalan reported a sense of kinship and familiarity with the people and places in Astoria.
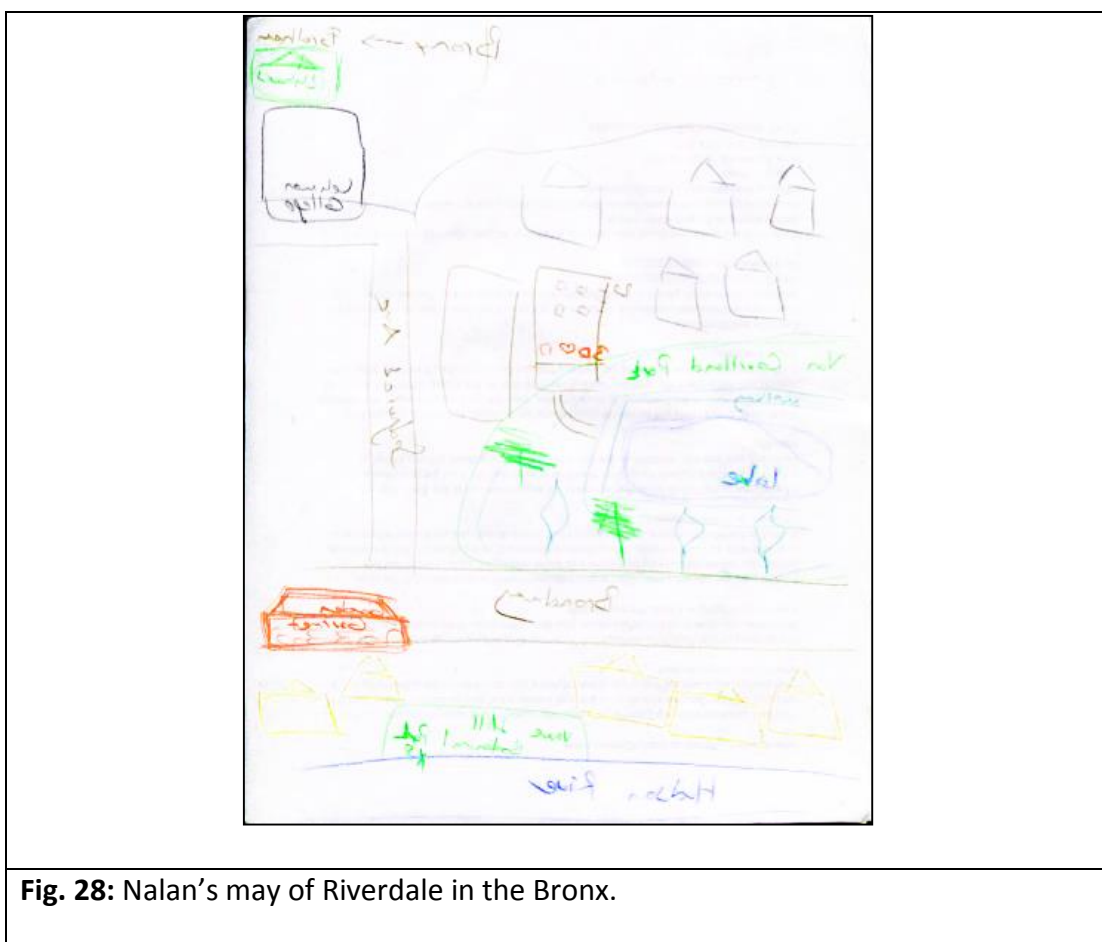
Fig. 28: Nalan's may of Riverdale in the Bronx.

Noely – It was almost a shock for me to realize that I first met Noely when she responded to a flyer posted at the ICNY, because since then I've hung out with Noely on many occasions. Outgoing and energetic, Noely moved to Jersey City from Caracas by way of Miami with her husband. Largely through the ICNY, Noely had a very diverse group of friends and an active social life. In addition to allowing me to interview her twice, Noely and I made intermediate dates for brunch, lunch and coffee, and we developed in informal habit of speaking in English for half of our conversation and Spanish for the other half. In the course of our friendship, Noely has frequently sent me text messages asking for on the spot translations of terms or phrases, and I've also reviewed her resume and role played job interviews with her. Both Noely and her husband were looking for work in the city, and although Noely's English was a little

more basic than her husband's, she eventually found a job first, with a marketing firm in the financial district.
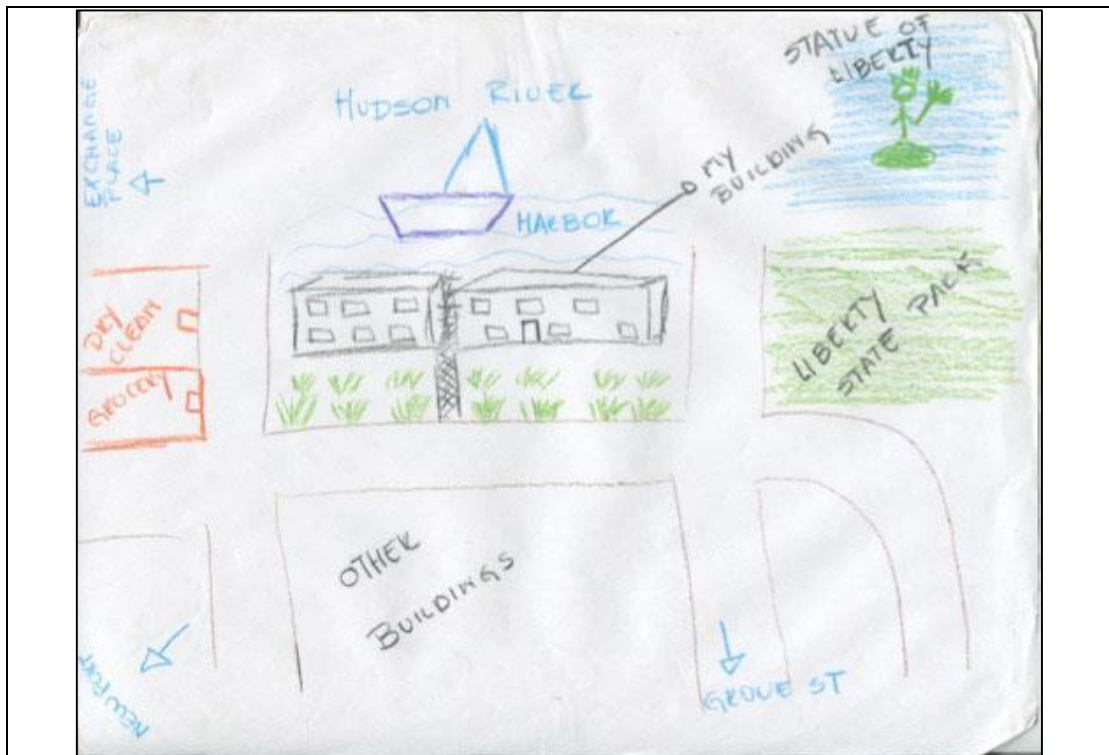
Fig. 29: Noely's map of Jersey City.

Raul – Raul contacted me after having seen a flyer posted at the ICNY. A 22 year-old undergraduate, Raul spoke almost perfect English, but worried about his accent. Raul wanted to go to graduate school in Europe, although this was complicated by his Guatemalan girlfriend, who was currently attending culinary school in New England. Raul's knowledge of New York was bound almost entirely to Manhattan, and he expressed a somewhat sheepish lack of knowledge about any other borough.
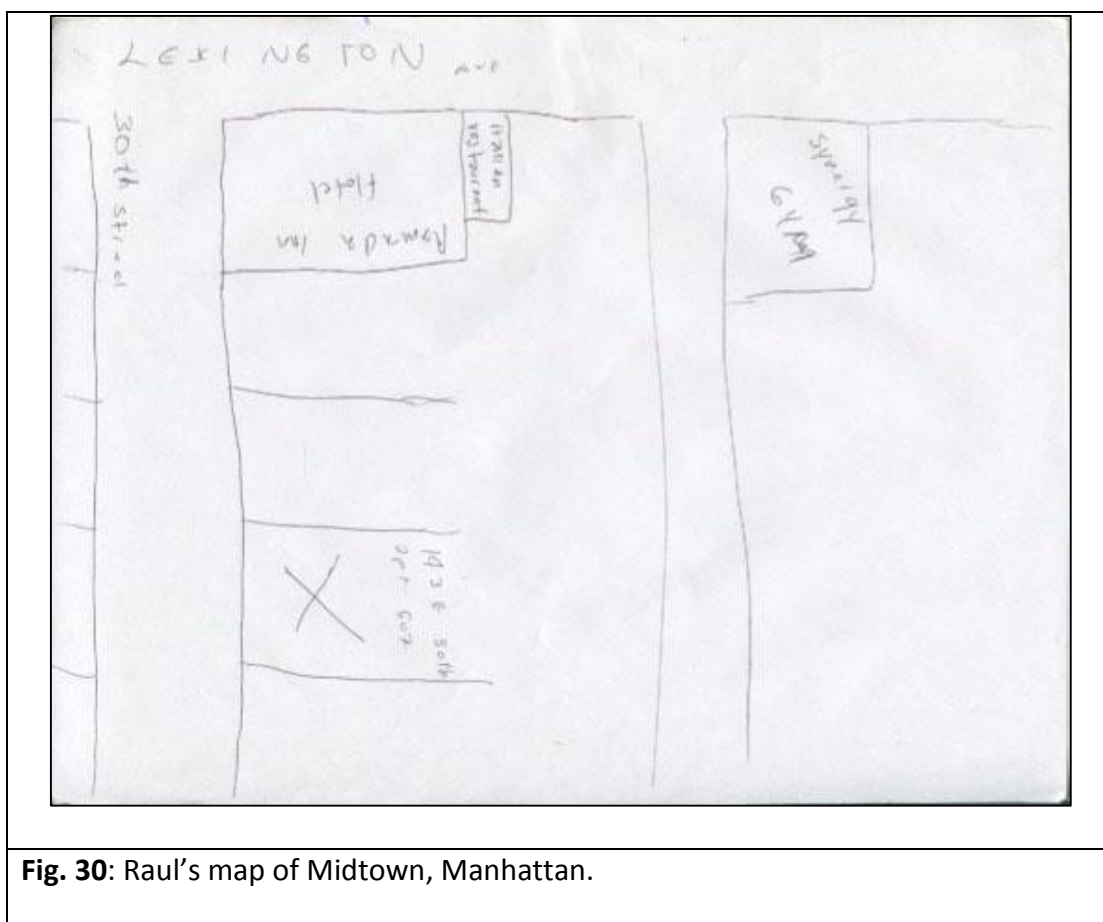
Fig. 30: Raul's map of Midtown, Manhattan.

Rob – I recruited Rob through my personal network, having met him at a bike protest in New York. After learning that Rob had moved to the city just a few months before, I asked if he would allow me to interview him about his experiences in New York. I was interested in interviewing Rob both as someone from Puerto Rico, which has a very particular place in New York's immigration history. As well, I wanted to include the experiences of an avid cyclist in my interview pool. At the end of our first interview, it turned out that Rob and I lived just a few blocks apart. Rob and I became friends, often seeing each other at bike-related events and protests.

Fig. 31: Rob's map of Bedford Stuyvesant, Brooklyn.

Appendix 2: Photos from Participatory Wandering

Over the course of the research process, I asked a number of participants to take me on walks through neighborhoods that were important to them in New York. I made these requests based on an interest in seeing a variety of neighborhoods in the city, as well as more pragmatic limitations of who was available for a commitment of an hour or so to walk me around. The below map is reproduced from the methods chapter, and what follows are descriptions of photos that I took from walks with Mei in Chinatown and Nalan in Astoria, as well as unaccompanied walks in Laura's neighborhood (Astoria) and reproducing Midori's commute in Midtown.

Participatory Wandering

Midori 2/18
Ishmael 5/31
Miao, 3/1
Noely, 5/21
Nalan 4/6
Laura, 5/28
Rob, 5/15
Amelie 5/26

Fig. 32: All dates 2012. Pink lines denote routes of unaccompanied walks, and blue lines indicate routes of accompanied walks. Blue pushpins are used to mark sites where I volunteered at ESL programs.
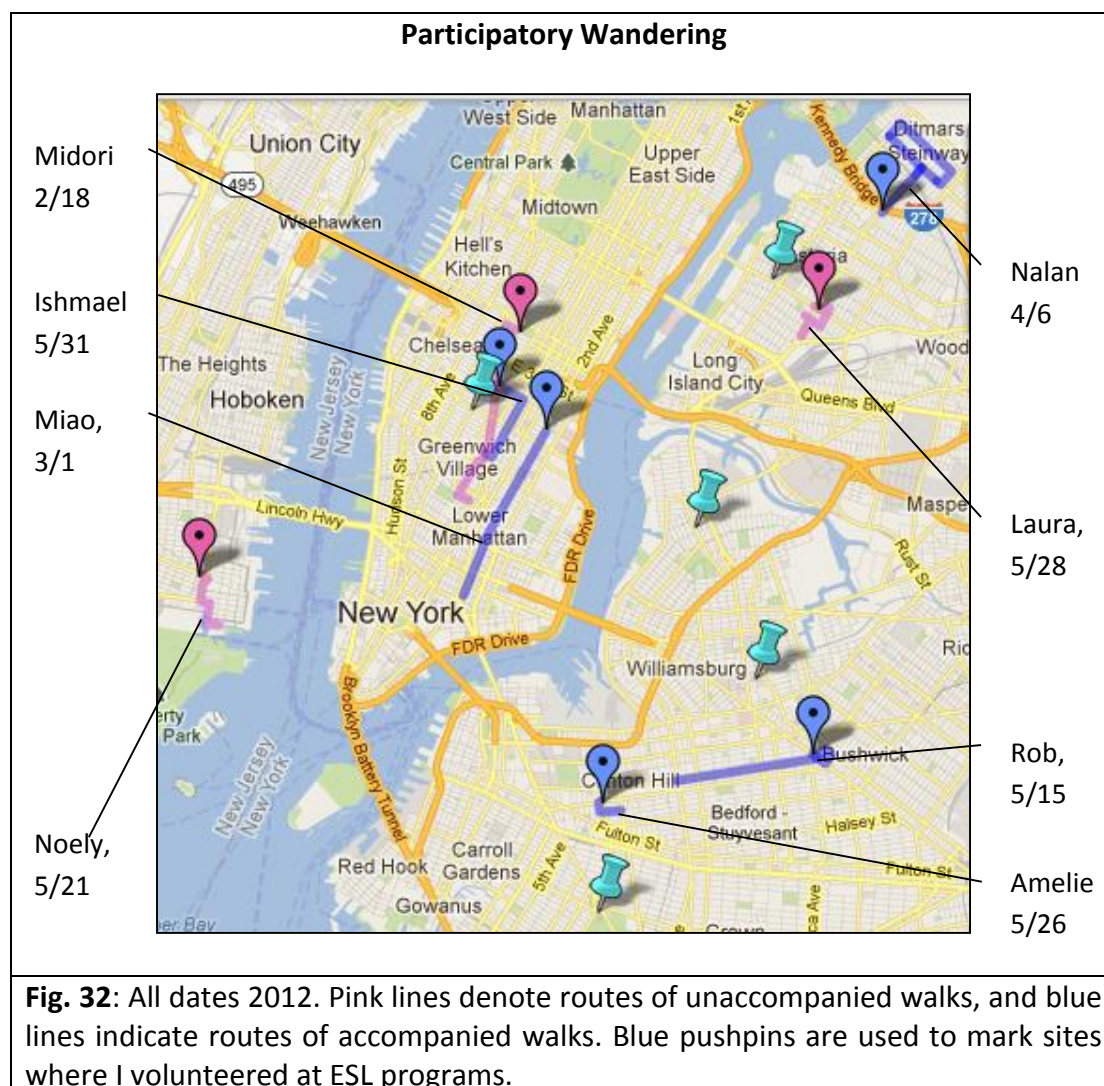
Fig. 33: When I accompanied Miao to Chinatown, I asked her to point out things that made Chinatown feel old fashioned to her, and she immediately pointed to the older signage on buildings, explaining that the characters were written in the older, non-modernized style.

Fig. 34: In following Miao as she did her grocery shopping, most of the signs at grocery stores were bilingual, including the receipts.

Fig. 35: During my trip to Astoria with Nalan, we met at a Greek café where Nalan and I had coffee and pastries, and then I asked Nalan to walk me through a typical afternoon of errands in the neighborhood. In addition to showing me the salon that she patronized and her favorite seafood restaurant, we stopped at the above specialty food store, where Nalan pointed out some of her favorite foods. Despite genuine protests on my part, I was unable to stop Nalan from purchasing Turkish-style baklava (which turned out to be delicious) as a gift for me.

Fig. 36: When I asked Laura how she'd located her apartment in Astoria, she mentioned ads posted in a Brazilian grocery store in Astoria. Based on her map, I located the store, which contained products from Brazil, as well as other countries in Latin America.
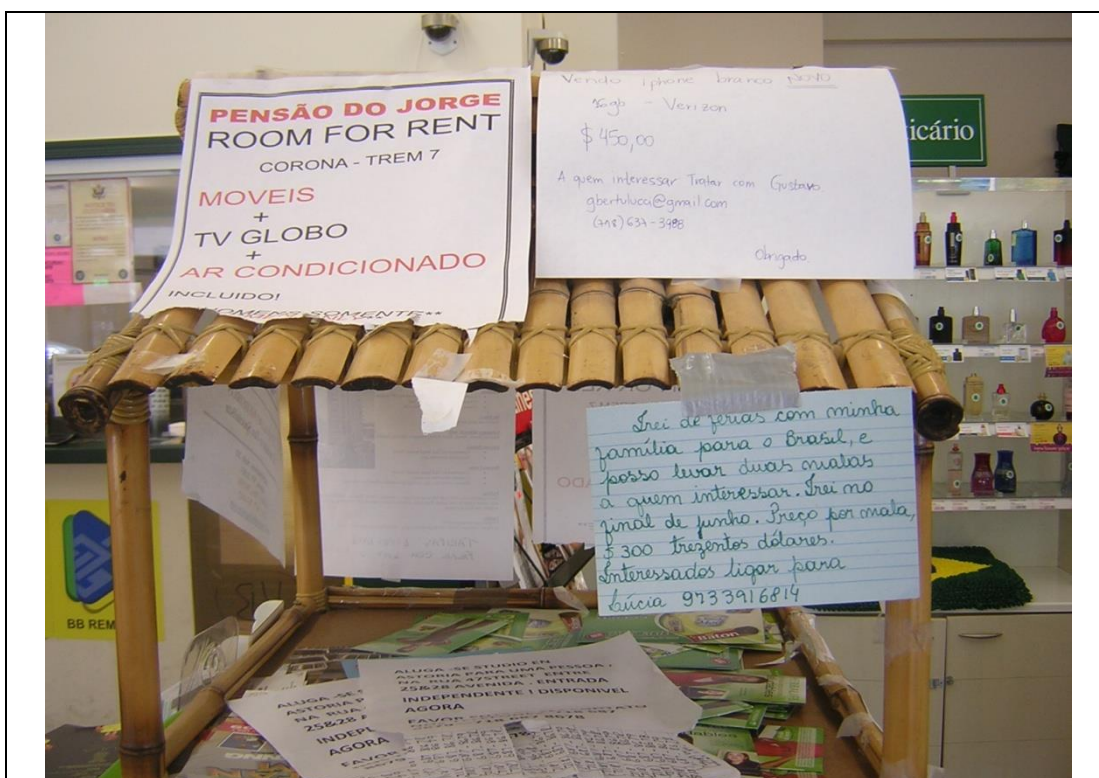
Fig. 37: Laura described the ad through which she located her Astoria apartment in the following way: "In this [grocery store] there are a lot of piece of paper with announcement, rooms for rent, and I was looking for a new place … And then I was looking for it, and I saw this one." Although most signs were in English and Portuguese, some were only in Portuguese. None were written only in English.
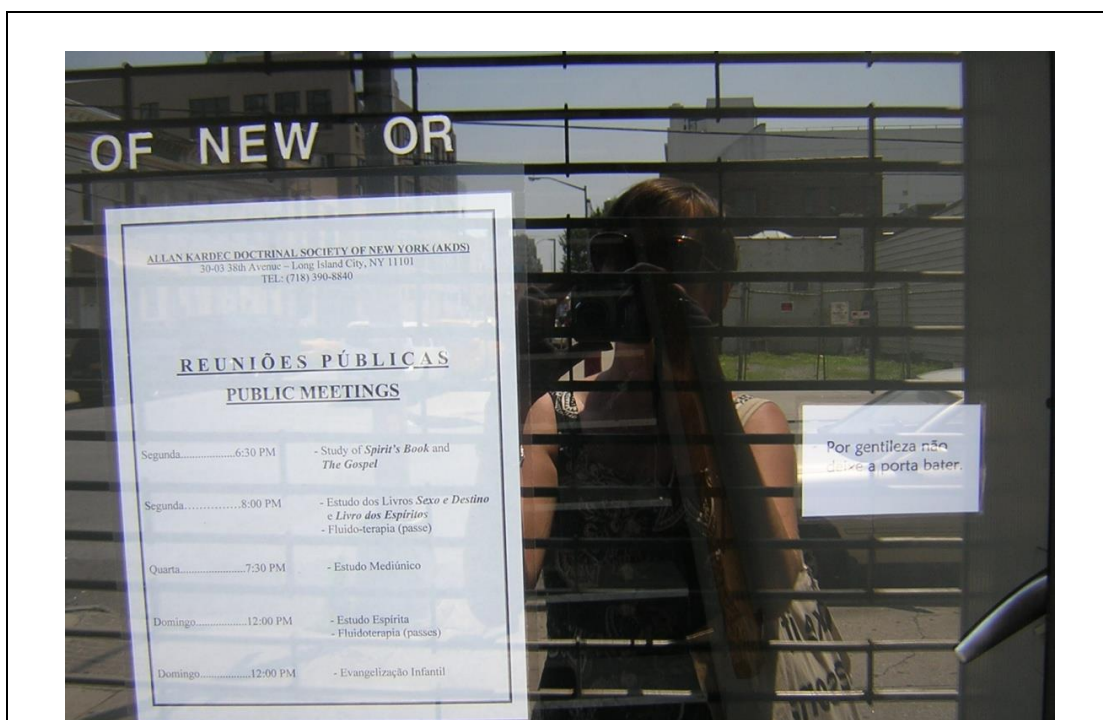
Fig. 38: In the same grocery store depicted above, Laura mentioned running into a fellow Brazilian who engaged her in an impromptu conversation about religion. During the conversation, Laura was informed that there was a branch of her church, Spiritism, in the neighborhood. Although somewhat vague in terms of where the church was on her map (and after all, I hadn't requested the map with the intent of using it for directional advice), I eventually located the building, with signs primarily in Portuguese. Interestingly, when I attempted to find more information about the church online, I was stymied by a combination of language and what seemed to be a lack of detailed online information. Had I wanted to locate the hours of services for Laura's church, following her directions to the physical building might indeed have been the most efficient way.

Fig. 39: Although I didn't know the exact location of Midori's apartment, I knew the block, and from our interview, I knew that she preferred to walk along Broadway on her commute to NYU. Even though I'm quite familiar with Midtown (having worked for years in a Midtown office a few blocks from Midori's apartment), I wanted to replicate Midori's commute as an additional layer for thinking about her experiences in urban space. Given Midori's reluctance to leave Midtown and lower Manhattan, it was particularly interesting for me to think about her commute as a microcosm of her impressions of the city.

Appendix 3: Research Site Descriptions

This appendix describes in detail the research sites used for participant observation and to recruit interviewees for this project. Although some participants in this study are in the United States legally, others have very tenuous legal status. In most cases, I typically did not probe this issue too much, both because it wasn't directly related to my area of study and because it was probably safer both for participants and me not to have in-depth knowledge of their immigration status in the event that it wasn't entirely legal. Nevertheless, because some participants were not in the United States legally, it is even more imperative to protect their confidentiality, which affects the level of detail I provide about various research sites. Most of my participants were recruited at the ICNY, which I do not anonymize as an institution (although I have altered names of participants recruited) because I believe that the size of the organization provides confidentiality to participants. I don't anonymize the name of the ESL program in Newark, NJ (La Casa de Don Pedro) because in the end I didn't recruit any participants there. Even without conducting interviews, my volunteer work there was useful as a way of learning more about transnational life in Newark as opposed to New York.

All other research sites are ESL programs at public libraries in New York. New York City's public library system is divided into three autonomous bodies – the Brooklyn Public Library, the Queens Public Library and the New York Public Library, which includes libraries in Manhattan, Staten Island and the Bronx. I volunteered as an ESL conversation group leader for both the Queens and Brooklyn Public Libraries. This required undergoing training for the Brooklyn Public Library, but not for Queens (where ESL administrators felt that I already possessed adequate training). Although

attendees of ESL programs in Queens are asked to register (meaning that when I ran sessions for branches in Queens, I was required to ask students to sign in), in Brooklyn, this is not the case. Thus, I refer to the branches where I recruited in Brooklyn by name, but I use only the names of general neighborhood to refer to the library where I volunteered in Queens.

International Center New York – New York, NY

Operating in Midtown Manhattan, the ICNY has offered ESL classes and acculturation programs in New York for over 50 years. I began volunteering at the ICNY in 2007, two years prior to enrolling in my PhD program, as a conversation partner and writing tutor. The ICNY matches volunteers with ICNY members, who pay the Center a small fee for ten weeks of one-hour meetings. Volunteers receive several hours of training prior to working with the ESL population; I received training[40] for both conversation and writing partnerships. As part of the research for this project, I took on conversation partnerships for two hours a week and also ran a book club, which in fact was more like a "short story club" in which members read a short story each week, which we discussed as a group. In addition, I often dropped by the ICNY just to hang out, and sometimes located participants for interviews that way. Because the ICNY charges for membership, the population is (or seemed to me to be) financially more advantaged than at the other research sites. As well, members seemed to be younger in age. At the same time, the ICNY offers free membership to asylum seekers, which creates a population that is much less economically privileged. In April of 2012, the

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[40] It's interesting (and perhaps troubling) that as an unpaid volunteer working one-on-one or in small groups in an uncertified program, I was frequently required to undergo hours of training. In order to teach undergraduate or graduate classes of up to fifty students at a research one university, no specific training was required.

International Center was forced to close when the building where they had operated for over 30 years raised their monthly rent beyond what they could afford (see Leonard, 2012). The ICNY is currently operating on a piecemeal basis, offering limited services in space provided for free at a local Catholic charity.

La Casa de Don Pedro – Newark, NJ

La Casa operates as a constellation of non-profits serving the Newark area, providing services that include adult and teen education, as well as local immigrant populations. The building where I volunteered is in a low-income neighborhood in an in an economically disadvantaged area just outside downtown Newark. Entering the building required being buzzed in by a receptionist, apparently as a safety measure. Both students and administrators expressed concern on days when I rode my bike to La Casa, stating the likelihood of its being robbed. As a volunteer, I worked with adult students of an ESL class as well as adult students preparing to take the US citizenship test. Although I was interviewed prior to volunteering, I was not required to undergo any training prior to beginning my tutoring work. Students signed up and registered for classes themselves, which were subsidized by federal funding, but showed up for tutoring sessions on a drop-in basis, without needing to register. The majority of these students were between 30 and 60 years old, and from the Caribbean. Students lived in or very close to Newark, and most were un- or underemployed. Of all the research sites where I volunteered, the Casa was where I most struggled to mitigate a hierarchical dynamic between myself and class participants. Despite repeated requests to call me by my first name, people I tutored insisted on calling me "teacher."

Bushwick – Brooklyn, NY

After undergoing training as an ESL volunteer at the Brooklyn Public Library, I attempted to start my own ESL conversation group at the Bushwick branch. Just east of the very trendy and largely gentrified neighborhood of Williamsburg, Bushwick has a large Latino population and is notably less gentrified, and initially the BPL ESL coordinator was excited about starting a group there. As a resident of the nearby neighborhood of Bed Stuy, I was excited about volunteering close to my own neighborhood. The Bushwick library is small, and in my time there I observed a fairly active teen population using computers, as well as a regular population of black and Latino adults. I spent about two months attempting to start a conversation group, but after weeks of having only one or two attendees, and in light of the fact that the library was closing for renovations for a period of one month, the volunteer coordinator at the BPL decided to send me elsewhere.

Central Library – Brooklyn, NY

The flagship building of the Brooklyn Public Library, the Central Library offers ESL classes every day of the week. Although I did not volunteer here, I did drop by the ESL classes of other BPL volunteers in order to recruit participants. As well, my training for ESL volunteer work at the BPL took place at the Central Branch. Because of its size, convenient hours and location (just north of Prospect Park, close to Grand Army Plaza, the Brooklyn Museum and the Brooklyn Botanical Gardens), the Central branch attracts a large number of both residents and tourists. Anecdotally, it seems that many migrational individuals encounter the Central Branch as their first introduction to the Brooklyn Public Library system (or indeed, any of the New York public library institutions). Some then move on to a smaller branch closer to where they live, while

some continue to use the Central branch, even when it required a substantial commute – in one of the classes I observed, several participants mentioned taking multiple forms of transportation to travel to Central. ESL classes are large enough that they are divided into beginner and advanced groups, and attract both short-term visitors to New York and people who intend to settle in the city permanently.

Greenpoint – Brooklyn, NY

During the Bushwick library's closure for reconstruction, I was asked by the Brooklyn Public Library volunteer coordinator to substitute for an ESL conversation group at the Greenpoint library, which has had an established conversation group for a number of years. Greenpoint is home to a large Polish community, and the vast majority of the conversation group participants were from Poland. The group was very dedicated and members knew each other quite well. The fact that the group was almost exclusively Polish was a draw even for those who didn't live in the area; one woman travelled over an hour from the Bronx to join the group each week, although presumably other errands in Greenpoint were a concatenated lure. Eventually, a second conversation group started, for which I also volunteered as a discussion leader. This group was more diverse in terms of nationality and was comprised of people who had been living in New York for less time. The Greenpoint branch is similar to the Bushwick branch in physical size, but the librarian staff at the former seemed much more proactive in programming for the ESL population.

Long Island City – Queens, NY

Through contacts at the ICNY, I started volunteering at a branch of the Queens Public Library in Long Island City. As was the case at La Casa, I was interviewed prior

to volunteering, but wasn't required to undergo any additional ESL training. The library is small and only contains children's material. The library itself was not conducive to my personal ESL teaching philosophy, which emphasizes ESL for an adult population; as such, I avoid things like children's reading materials or children's games to practice English. Thus it was particularly frustrating that at this location, we were surrounded by children's books, as well as children themselves, and seated in miniature, child-sized chairs for the conversation group. In the afternoons, a group of women (referred to universally as "the mothers" by library staff, a convention I follow here, although I recognize that it essentializes the women in terms of their maternal roles.) come to the library with their elementary-school aged children. In the four months that I spent at the LIC branch, I observed two groups of women coming to the library: Latina women and Middle Eastern women, of which only the former group regularly participated in my ESL group. From what I observed, interaction between these two groups was minimal. As a general schedule, the mothers brought their kids to the library after school and by the time I showed up (once a week, an hour before the library's closing), the children would be sufficiently occupied that the moms could leave their kids to their homework (there were a couple other volunteers who worked with kids on homework tutoring and playing music) and participate in an hour-long English speaking session.

The library's administrator had initially envisioned this as a discussion group to discuss parenting strategies (she had given me a parenting book on communicating with children as a starting-off point), but I abandoned this theme fairly early on, both because as a childless woman I was somewhat uncomfortable with the topic and because the mothers' English was functionally too basic to engage a topic that narrow

on a weekly basis. Instead, each week I let the mothers select whatever topic of conversation they wanted, which almost always focused on communicating with teachers and administrators at their children's school. Most of the mothers had been in the United States for at least a decade, so I wound up not recruiting any participants for interviews here. Nonetheless, it was an incredibly useful research site for observing interactions between immigrant women, and between first generation immigrants and their children.

Appendix 4: Themes for Conversational Interviews

Although conversational interviews are intended to be less structured than other types of qualitative work, they are guided by key themes developed to understand practices of information and technology in becoming familiar with new urban environments. Key interview themes are listed below, which served as starting points for conversations with participants.

Themes from Conversational Interviews	
Theme	**Purpose**
Lostness	Drawing on the critical incident technique (Flanagan, 1956), asking about lostness will elicit discussions on moments in which the city felt unfamiliar. This question is also intended to gain insight into specific moments when participants developed tactics for learning about neighborhoods.
Finding ESL program	This area of inquiry is intended to focus on a particular instance in which participants needed to locate information about a particular resource.
Choosing a place to live	Asking about finding a place to live will both address particular methods of gaining information about new urban environments, and gain insight into how participants talk about the city.
Talking to people in home country	This question will indentify expectations of the city, gets at how transnational newcomers describe the city to others.
Favorite neighborhood in New York City/Newark	This question is intended to address city imageability (Lynch, 1960), spaces of comfort, and descriptions of spaces where the city is familiar.
Table 5: Although conversational interviews are intended to be informally structures, the above themes were used as guides when interviewing participants.	

Appendix 5: Statistics on Transnational Migration

Foreign-born Population in New York, 2011	
Total	**3,066,599**
Europe	486,806
Northern Europe	53,100
Western Europe	46,255
Southern Europe	86,241
Eastern Europe	299,588
Other	1,622
Asia	843,321
Eastern Asia	441,656
South Central Asia	240,480
South Eastern Asia	93,960
Western Asia	64,249
Other	2,976
Africa	128,176
Eastern Africa	6,727
Middle Africa	3,174
Northern Africa	26,939
Southern Africa	3,369
Western Africa	76,710
Other	11,257
Oceania	6,271
Americas	1,602,025
Latin America	1,580,462
Central America	311,319
South America	424,143
Northern America	21,563

Table 6: Source: American Community Survey, 2011. Retrieved from http://www.nyc.gov/ html/dcp/html/census/popacs.shtml

Net Migration by Country		
Rank	Country	Migrant(s)/1,000 population
1	Qatar	40.62
2	Zimbabwe	23.77
3	British Virgin Islands	18.56
4	Turks and Caicos Islands	17.27
5	United Arab Emirates	16.82
6	Singapore	15.62
7	Cayman Islands	15.37
8	Bahrain	14.74
9	Sint Maarten	14.24
10	Anguilla	12.97
11	Cyprus	10.75
12	Aruba	9.29
13	San Marino	8.96
14	Luxembourg	8.15
15	Isle of Man	7.41
16	Djibouti	6.02
17	Australia	5.93
18	Canada	5.65
19	Spain	5.02
20	Botswana	4.75
21	Jersey	4.7
22	Italy	4.67
23	New Caledonia	4.18
24	Liechtenstein	3.98
25	Hong Kong	3.9
26	United States	3.62

Table. 7: As explained in the CIA World Factbook, the above figures describe "the difference between the number of persons entering and leaving a country during the year per 1,000 persons (based on midyear population). An excess of persons entering the country is referred to as net immigration (e.g., 3.56 migrants/1,000 population); an excess of persons leaving the country as net emigration (e.g., -9.26 migrants/1,000 population). The net migration rate indicates the contribution of migration to the overall level of population change. The net migration rate does not distinguish between economic migrants, refugees, and other types of migrants nor does it distinguish between lawful migrants and undocumented migrants." Retrieved from https://www.cia.gov/library/publications/the-world-factbook/rankorder/ 2112 rank.html

English Language Ability of Persons Ages Five and Over, New York		
	People	**Percent**
Total	7,627,879	100%
Speaks only English at home	3,986,074	52.2
Speaks only another language at home	2,651,805	47.8
Table 8: Source: 2006 ACS PUMS Population Division, NYC Department of City Planning.		

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