**Methodological strategies in the field**

Below we explain the rationale behind our chosen research methods. We reflect on some methodological challenges we encountered during this project.

The main objective of this research project was to explore the life experiences of auxiliary workers (drivers, housekeepers and security guards) in IT/ITES Industry in Pune, India. In recent years a rich scholarship has emerged on the IT industry in India but most of this literature is focused on the role of the professional workers in transnational call centers and software firms in the context of globalization (Aneesh 2006; Upadhyay and Vasavi 2008; Mukherjee 2008; Patel 2010; Radhakrishnan 2011; Mirchandani 2012). Little attention however has been paid on the workers who occupy the lower end of the urban labor market in emerging neoliberal cities in India and their critical role in supporting the higher end, relatively more mobile and better paid counterparts i.e. the IT professionals. We were interested in three main questions: First, how do auxiliary workers (low wage service workers) obtain their jobs, either in terms of the training they undergo or in terms of the networks they use to gain employment. How does race, class, caste, gender relations come together to structure how people are employed in these sectors. Second, how do they mediate the global space vis-à-vis their local lives in terms of their family responsibilities as well as work and sleep schedules. How do day and night workers experience their jobs differently? Third, how are auxiliary workers affected by the subcontracting arrangements, cultures of surveillance, performance targets and control of time, which are known to characterize transnational IT-related firms. In turn, how may the auxiliary workers influence how IT firms operate in India?

These are important questions because unlike many studies of neoliberal globalization that centers around the macro economic processes, role of bureaucrats and planners in policy making, we wanted to focus our analysis on the labour of those whose work is hidden, increasingly in the shadow of their more visible professional counterparts. Yet without the services provided by these auxiliary workers the shiny new hi-tech workplaces, which have become the symbol of India’s emerging power in the global economy would not be possible.

Influenced by feminist, postcolonial, and critical international development scholarship which use a multi-scalar approach to link the local with the global processes and spaces of production with those of social reproduction (Mohanty 2003; Freeman 2001; Nagar et all 2002) we deployed an institutional ethnography approach (Smith 2005) to study the social organization of the auxiliary workforce supporting technology professionals in India. Scholars such as Carla Freeman (2001) alert us to the importance of deploying a multi-scalar perspective and gender/race/class-aware analysis of globalization and macro economic processes. This allows for analysis not just of how “global” processes impact the “local” (for example micro-analysis of how third world women in different regions is inserted into the global economy) but also of how the local regimes influence the global; thus highlighting the relations between the global and the local. Feminist geographers like Nagar et. al (2002: 260) provide similar critiques. They argue for a more inclusive account of globalization that foregrounds informal sites like the household, communities, cooperatives and transnational networks like diaspora instead of formal sectors like corporations, markets, financial and development institutions. In fact they highlight that without tracing the “interdependencies between the formal and informal circuits” and “how people experience globalization processes in their communities and homes” we are left with an incomplete understanding of globalization (Nagar et al. 2002: 262). Others note that approaches, which focus on the experiences of only those directly involved in the work of producing internationally exchanged goods and services also provide a partial understanding of globalization. As Sassen argues, "insufficient attention has been paid to the actual array of jobs, from high paying to low paying... services need to be produced, and the buildings that hold the workers need to be built and cleaned" (2002:5-6). Fernandez (2004) terms this omission a "politics of forgetting" whereby the middle class is considered the sanitized, purified visual embodiment of globalization and the impact of economic restructuring on marginalized groups is masked. In light of these debates and in the context of the rapid growth of India's outsourced IT-related industry, it is vital to study the work of not only the groups directly employed by transnational corporations but also the workers who support these employees. As McDowell notes, there is a “social divide between high tech and high touch work” (2009:26). Studies of high-touch auxiliary service workers elsewhere have generated important insights; Bezuidenhout and Fakier (2006) note that subcontracting regimes for cleaners in South Africa result in working conditions, which mirror apartheid. Seifert and Messing (2006) document new managerial strategies, which lead to work intensification for cleaners. Armstrong et al. (2008) note that auxiliary work such as food preparation, cleaning and maintenance is key in the invisible work in the provision of health care in Canada.

Many scholars (Sassen 1996; Castells 1993; McDowell 2001; Chang and Ling 2000) have demonstrated how neoliberal globalization has intensified social polarization of labor markets in industrialized cities. They have examined how high-skilled, highly paid hi-tech work is supplemented and supported by a wide range of mostly invisibilized, poorly protected and poorly paid but equally important care based work done mainly by people of color and poor, migrant women. In this context it is important to explore how the increasing numbers of educated middle class women and men who have been entering the export led IT and ITES sectors in India rely on the labor of poor and low paid workers in highly feminized jobs such as cleaning and domestic service as well as highly masculinized jobs such as driving.

Conceptually, this study is an institutional ethnography (Smith 2005) in which workers’ experiences will be used as a point of entry to understand the “social organization” (Smith 2005) of the auxiliary services supporting technology workers in India. Smith describes institutional ethnography as a practice, which begins in the everyday lives of people in order to explore the ‘social relations and organization in which our everyday doings participate but which are not fully visible to us’ (Smith 2005:1). Such an approach is rooted in learning and producing knowledge from the “informant’s experiential authority” (Smith 2005: 141). Hence we decided to conduct interviews which will be designed to allow for “personal narrative analysis” (Maynes et al., 2008; DeVault and Gross, 2007) to understand the social, economic and cultural contexts of the experiences of auxiliary workers in contemporary India. Moreover institutional ethnography also emphasizes and allows us to understand the connections between multiple sites and situations of everyday life, management/professional practice and policy making (DeVault 2007:5). Thus in addition to interviews with workers we also interviewed subcontractors, supervisors, IT company facilities managers, labour officials and analyzed policy documents like contract labor laws, recruitment manuals and company brochures. Weaving together these multiple narratives allowed us to understand the larger structural forces of neoliberal globalization, IT/ITES industry operations and local regimes of class, caste, gender based difference that color workers’ experiences. Instead of seeing gender, race, caste and class as separate analytic categories, the focus of this project is on the intersecting relations that work together to produce complex relations of domination and subordination (Ng 1989, 1993; Glenn 1999; Liu 1991; West & Fenstermaker 1995). Thus, the uneven impact of globalization and segmented labour markets cannot be understood without reference to how gender, caste and race intersect and complicate class relations. Researchers note that analysis of auxiliary workers provide an opportunity to study emerging race, class, caste and gender regimes (Aguiar and Herod, 2006). This project explored how race, class, gender and caste interact to structure workers‟ employment opportunities and work experiences within transnational firms. Raju notes that globalizing processes interact with patriarchal structures at different sites to create "regional patriarchies" (2006:117) which give rise to multiple configurations of gender hierarchies in different workgroups (Salzinger, 2003; Lee 1998). We explored these dynamics of labor relations in the book.

**Methodological dilemmas in the field**

This project involved the collection of a large sample of data from an emerging new sector in India on which there has been no systematic research to date. The documentation of the lived experiences of drivers, housekeepers and security guards in the IT/ITES industry, who are caught between formality and informality, brought with it some unique challenges. Some of these resulted from the nature of the work itself and others were related to the multiple positionalities of the research team and participants involved in the project.

Scholars who have done research with undocumented people, refugees, asylum seekers, sex workers or other vulnerable populations have described some of the specific challenges and ethical considerations they entailed (Hubbard 1999; Van Liempt and Bilger 2009). Based on fieldwork in Mexico and U.S., which involved interviewing undocumented immigrants, Cornelius (1982:3) described the difficulties he encountered with regard to access to interviewees, gaining their trust, issues of confidentiality, and payment of an honorarium. Cornelius argued that despite these challenges in doing direct interviews, the insights gained from such research is crucial to understanding the immigration debate and the socio economic impact of undocumented workers on US society. Kamal and Killian’s (2015) recent study on the lives of undocumented youth in Canada, especially examining the mental health impacts of living in fear of deportation and detention also involved careful consideration of their vulnerable position. They refrained from collecting identifying information like names and addresses to maintain confidentiality so as not to cause any risk to their personal safety. Anderson et al (2010) has examined some key methodological challenges in relation to migrant workers in the context of occupation health, especially those who are employed in unregulated, informal and precarious work. The findings revealed that “migrant workers were difficult to reach as employers were often hostile to intrusion and the workforce is typically contingent, mobile and frequently hidden”.

High attrition rates, frequent “shift change”, and insecurity of tenure made it very difficult to contact, recruit and conduct interviews with our sample of workers. There were many instances when initial contact numbers that we were given turned out to be inaccessible. We found out during the course of doing this research that workers often change jobs or leave the city to go to their village to see family. Some of our student researchers reported cases where they had initially set up a meeting time to meet a worker at his/her place of work but when they reached the office they found out the person was unavailable because he/she had to take over a shift for someone else who was absent or their own shift had changed. When we did manage to conduct interviews in the workplace, we realized the close proximity of the supervisors either made respondents aware of what they were sharing or uncomfortable to be completely upfront about their work experiences. As a result whenever possible we tried to conduct interviews outside the workplace. Some of our research assistants managed to visit workers in their homes or dormitories while others

conducted interviews at bus stops, tea shops, or other public places. The pressures and time commitment of this job thus was a deterrent itself.

We offered Rs. 400 honorarium to workers who completed interviews with us to compensate for their time. While most of our interviewees accepted the offer there were some cases where the monetary exchange was seen as suspicious or confusing. In such cases we explained in detail the reason for the compensation highlighting that this was an academic project. Institutional affiliation with University of Toronto and Pune University helped build trust and legitimacy with the participants. Although some interviewees initially showed restraint and reserve, they became more comfortable and animated during the course of the interviews. One of our research assistants noticed that the participants became very emotional during the interviews, some even resorting to tears as this was the first time they were able to share their life stories and work related challenges. Some openly shared personal problems beyond work which included stories about inter caste relationships or marriage, and domestic troubles linked to substance abuse of their partners. These narratives at times proved uncomfortable for us as researchers because the nature of the project did not necessarily allow us to actively offer assistance even if we wanted to. However, the community activists amongst us offered to stay in touch or suggested local organizations and resources that could be of help to the workers. Such ethical dilemmas have been actively debated amongst feminist scholars who grapple with the politics of doing research that is for the benefit of those who are its main subjects and consider the connections and disjunctures between academic and activist work (Oakley 1981; Nagar and Ali 2003; Hesse-Biber and Leckenby 2004). We realized that perhaps one of the limitations of our institutional ethnography capturing the narratives of a large group of workers was that unlike traditional ethnographic research, we were unable to establish long-term ties with our respondents. Although the nature of their vulnerability was not the same as other vulnerable populations we described above, the ambiguous positions of the workers we interviewed stemmed from working as informal workers within the formal IT/ITES industry under complex subcontracting regimes.

In addition to these issues the multiple positionalities of participants and researchers based on their social locations (linked to class, gender, caste, age) and the attendant institutional and political hierarchies within which they belonged (Mukherjee 2017) provided both advantages and disadvantages during the research process. For example gender, age, and class background of the student researchers and their institutional ties with Pune University enabled them to on one hand gain access and build rapport with the workers but also provided some challenges. All our male research assistants for example informed us that they were able to connect easily with male workers but those who had family members or friends in the industry were able to gain trust more easily than others. Rahul for example shared how by connecting with them as “friends” and sharing some of his own experiences, he got them to share aspects of their lives like how they spent their leisure time with more ease than others. However there were times when it was not as easy to establish trust with the workers. One such incident was when two of our male research assistants visited the accommodation facilities where many of the workers lived. They found out these were very poorly kept and congested areas, often housing 20 people in one room. The workers felt uncomfortable talking to them in such settings because they thought they may be reported to the authorities or the media. Many such subsidized, semi-legal housing facilities have mushroomed in Pune because they are cheap and often subcontracting firms and vendors encourage workers to live there especially if they are within close proximity to the IT firms where they are expected to work. Our female research assistant on the other hand felt that because she was in her 30s she was able to connect with workers who were a little younger or older than her but older men who were supervisors may have found her too young and they felt more comfortable when she was joined by one of the senior research associates who were local scholars. However, she was able to build a good rapport with women workers, who spoke freely with her about many issues including some controversial issues like domestic violence and substance abuse. They even invited her to their house. One of the other issues raised by one of our female research assistants was how her gender identity sometimes made her feel unsafe while interviewing men especially when they tried to meet her in unconventional places like a park or tried to establish contact on the phone even after the interview was over. She remarked that as a result she always made sure she had company if she was meeting male workers for interviews and made sure to dress modestly in salwar kameez. Caste related questions were initially uncomfortable to ask. Prashant and Nitin reflected that workers who were reasonably literate and had experience of a good number of years of formal education were more comfortable about these questions. However as one of our senior research associate Vandana explained it also had to do with the complex nature of caste politics in India. For lower caste and dalit people, caste is an everyday aspect of their life, and they are less hesitant to name it, acknowledge it. It is more the middle class upper caste people including some of the interviewers who hesitate raising this question due to fear of being politically incorrect. Overall their student status provided the research assistants with resources (including methodology workshops and discussions we organized) and strategies to negotiate these challenges although all of them came from either working class or middle class backgrounds themselves.

In contrast the experiences of the three main collaborators and two local scholars, who were from middle class backgrounds and institutionally linked as academics with local and international universities found it relatively easier to access the IT firms and subcontracting vendors. Although the facilities managers of IT firms were harder to access because of their own security related protocols. These challenges were similar to the ones described by scholars who have researched the call center and software Industry in India (Upadhyay 2008; Patel 2010). Upadhya for example claimed that one of the main dilemmas involving researching the IT industry was that unlike the celebratory narratives rampant in the media, business and policy circuits, she and her colleagues had to disguise their critical take on the industry. She states that they “created representations of ourselves and our objectives that would persuade the companies to cooperate with is, without at the same time seriously misrepresenting out intentions” (Upadhya 2008: 68). In similar vein we found that in order to make facilities managers and subcontractors comfortable we strategically asked questions that refrained from making any open critique of the IT industry. Instead we asked questions that focused on the operations, labor relations and subcontracting networks with facility managers and biographical and career narrative angle with the vendors and subcontractors. Despite being in relatively powerful positions as academics we noticed that when we visited the IT firms our comings and goings were heavily monitored and we had to schedule appointments ahead of time. Every time we tried to gain entry without a direct contact to an HR or facilities manager we were unsuccessful. Sometimes we managed to get names of facility managers from the workers we had interviewed or from security personnel who denied us entry but referred us to their superiors. Other times we were able to contact key informants through the professional and personal contacts of members of the research team. Very rarely were we able to get email responses by using a generic organizational contact information without directly addressing a facilities or HR manager. By contrast, state government representatives like the labor commissioner, labor union representatives, and other bureaucrats were relatively easier to secure interviews with even on relatively short notice. In such cases the Pune University affiliation of one of the collaborators held considerable leverage. Most of these interviews with key informants were conducted in English although some were in Marathi. Not everyone in the research team was equally proficient in Marathi. One of the collaborators and both the local scholars/senior research associates however spoke Marathi fluently and often took the lead during interviews where the key informants preferred to be interviewed in the regional language.

Despite these methodological challenges, we managed to collect rich narratives about the livelihoods of auxiliary workers in the IT/ITES industry in Pune. We would never have been able to do the kind of research we were able to do involving a large sample of data if we had not worked collaboratively with our research team. Despite some of the limitations, we were able to gather locally grounded stories that enabled us to understand the workings of this emerging new transnational service sector in India.

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