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Abstract

Global call centers, such as those in India receiving back office work from the U.S., are testing grounds for new ICTs (information and communication technologies). While the "electronic sweatshop" has been the prevailing model for understanding the implications of these ICTs, this analysis proposes that a multi-surveillances framework offers a more compelling account. It widens the lens from managers alone, and uncovers a web of actors directly involved in the daily operations of Indian call centers—technology vendors, American outsourcing clients, American consumers, Indian shopfloor supervisors, and Indian employees. Using a case study of the Indian call center industry, this analysis shows each of these actors participates in their own independent surveillance of the others. It charts the proliferation of the technologies themselves and shows how devices like emotion detectors, answering machines, and online unions are symbolic of changing relations in global interactive service.

Keywords

workplace technology, surveillance, India, call centers

Why are Silicon Valley entrepreneurs producing software to monitor digitally the emotions of Indian call center workers? Why are Indian managers using communication headsets as an acting tool for employees to become American on the phone? How

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are American consumers using their answering machines and phones to monitor and deflect telemarketers in India? And most important, why have Indian workers rejected traditional labor organizing in favor of the virtual platform of e-unions?

The global interactive service industry is the testing ground for new ICTs (information and communication technologies). This outsourcing sector of the economy is unique in that is both *transnational* in sending service work across borders and *interactive* in linking customers and workers in direct contact. Global call centers, such as those in India receiving back office work from the United States, do this transnational customer service by phone. They are especially prone to new technologies because the core work of communication is interwoven with that of information. Through satellites and fiber optic cables, employees use telephones, computers, and the internet. They are talking on the phone with customers, while simultaneously looking at information on their video screens and connecting with databases on the internet.

What happens with these technologies—how they are used, by whom, and for what purposes—has not yet been explored fully. Many in academia and the media have turned to classic labor theories like the "electronic sweatshop" to understand the dynamics and implications. New ICTs in call centers are synonymous with surveillance, a process of control through observation and monitoring, practiced in a unidirectional way by managers against workers.

I argue that a framework of *multi-surveillances* provides a more compelling account of the relations of technology in global call centers. Rather than a single-actor model of technological agency (i.e., managers), this framework widens the lens to uncover a broad web of actors, who are directly involved in the day-to-day operations of Indian call centers—technology vendors, outsourcing clients, American consumers, Indian shopfloor supervisors, and Indian employees. *I show that each of these actors participates in their own independent surveillance of all the others through ICTs*.

Using a case study analysis of the Indian call center industry and its wider participants, I will chart the proliferation of the technologies themselves and show how devices—like emotion detectors, answering machines, and online unions—are symbolic of new relations in global interactive service. These technologies are indicators of the new range of actors, their unique motives and strategies, and their cross-cutting alliances.

The implications are both shocking and hopeful. On one hand, global call centers are sites of radically invasive technological control on peoples' bodies and mental constitutions. Because call centers are not producers of goods but rather sites of interactive service, they reveal how managerial control and surveillance extends to a wider range of human capabilities, displays, and skills.

At the same time, there is a new potential for empowerment. ICTs can have a leveling effect by providing new tools and platforms for agency among the traditionally marginalized. Furthermore, surveillance itself can be reframed as a practice for social justice, rather than for control by elites. Thus, although in many accounts the Indian call center workforce is perhaps the least likely candidate for collective action (Sandu, 2006; Taylor, d'Cruz, Noronha, & Scholarios, 2009; Taylor, Scholarios, Noronha, &

d'Cruz, 2007), new types of activism are evident and possible when looking in a broader context of global ICTs.

Theoretical Framework

Fracturing the Electronic Sweatshop

As information and computer technologies pervaded the labor process in the second half of the 20th century, scholars began to dub the new white-collar workplace the "electronic sweatshop" (Garson, 1988). The idea is that technology will enable Taylorism to be practiced even more forcefully and elaborately. With Foucauldian analogies (1979), some scholars are worried that ICTs could or would allow employers to monitor ever increasing details of workers' tasks, invisibly without their knowledge, and with more coercive consequences than in previous times (Sewell, 1998; Zuboff, 1988).

Call centers have been tagged in the media and scholarship as the prime example of the electronic sweatshop in the modern era (Fernie & Metcalf, 1998; International Labor Office [ILO], 2001). One reason is the skill base, as the work process itself requires relatively low-level educational qualifications and consists of clerical work. Another reason is the level of routinization and repetitiveness. Employees handle hundreds of calls a day in some cases, and may be reciting the same script each time. Furthermore, the computers employees are working on record their every move in phenomenal detail: keystrokes, log-in and log-off times, length of calls, number of calls, and so forth. In the Indian context, of course, call center work is relatively privileged as a white-collar profession and is often associated most closely with its outsourcing cousin, software development. Still, because of the extreme monitoring, it is also likened to 20th-century factory work.

Some recent studies have painted a more complex, if not more optimistic, portrayal of the electronic sweatshop in call centers. This revised model characterizes managers in nicer terms. They are said to implement empowering or pleasant strategies, rather than simply those of coercion, in their aim of eliciting commitment from workers (Frenkel, Korczynski, Shire, & Tam, 1999; Kinnie, Hutchinson, & Purcell, 2000). This therefore creates a setting of "fun and surveillance." Other critics enlarge the role of the workers, as agents of resistance to the technology. Call center employees are said to be defiant of managerial controls, both individually and collectively (Bain & Taylor, 2000; Mulholland, 2004; van den Broek, 2002). Still other critics argue that monitoring systems are themselves inefficient and only a means to an end, rather than an end of power itself (Thompson, 2003).

Thus, although the electronic sweatshop is a not necessarily a unified theory, the studies of surveillance in call centers frequently rely upon and display a core set of assumptions (Table 1). Both the advocates and critics of the electronic sweatshop model tend to adhere to a narrow view of the actors, power relations, and technologies in call centers. My critique is about the way that surveillance itself is presented in these theoretical frameworks. If surveillance in the electronic sweatshop model refers to a

Table 1. Electronic Sweatshop versus Multi-Surveillance Models

	Electronic sweatshop model	Revised electronic sweatshop model	Multi-surveillance Model
Site of surveillance	Call center internally	Same	Across the global interactive service grid—internal and external to the call center
Agents of surveillance	Managers	Managers and workers	Managers, workers, consumers, clients, and vendors
Tools of surveillance	Computers	Same	Code; internet; everyday technologies
Target of surveillance	Hard skills	Hard and soft skills	Identities (including nationality), along with hard and soft skills
Power relation	Domination	"Fun and surveillance"	Spectrum of agencies: domination, leveraging, social justice
Dynamic of surveillance	Unidimensional: Managers surveille workers	Dualized as proactive and reactive: Managers surveille workers; workers resist	Pluralized and networked: All participants surveille each other, often through alliances with other groups in the grid

singular practice of elites observing subordinates for the purpose of control, I seek to disentangle the parts and then broaden the conceptualization.

Based on my assessment of global call centers in India, I propose a framework that pluralizes the process and outcomes of technology. Rather than a single surveillance pathway of managers over workers in global call centers, there is a web of *multi-surveillances*. Many groups participate in the call center relationship, and all of them monitor and exert certain degrees of power over one another. Below I show how the multi-surveillance model offers an alternative set of premises (Table 1) about the dynamics of technology in global call centers. I start with a discussion of how globalization compels a pluralized view of this process.

Globalization of the Call Center Industry

My first proposition is that surveillance in Indian call centers plays out in a global context. Whereas the electronic sweatshop model implies that call centers are insular sites, I argue that call centers are more and more embedded in extended environments and relations, many of them global.

Call centers are making a slow but steady movement away from the firms they represent. *In-house* (or "captive") call centers, where firms hire their own customer service representatives on their premises, are on the decline now (although still the majority). These in-house employees are located in the "back office," but they are at least in the building itself and/or working face to face with their employers. Through *subcontracting*, however, this work is sent outside the business to firms that exclusively handle customer service. This is the first step of breakdown in the unitary call center environment. As such subcontracted firms are separated from their home firms, there is a widening in the web of actors with whom they interact, including temporary agencies, clients, head offices, and so forth (Kinnie, Purcell, & Adams, 2008).

International *outsourcing* expands the distancing process by moving the work across national borders. As opposed to the *onshore* forms described above, *offshore* call centers may either be a multinational subsidiary of the originating firm (i.e., as the in-house firm goes overseas), or it may be owned by a citizen of the host country (i.e., as a domestic subcontractor who takes foreign contracts). Driven by cheaper labor and infrastructure costs, these firms displace call center work even further from their business environment by separating it from the customer base as well as the employers. Not only are the firms crossing national borders, however, they are crossing lines of global economic power. Many firms in the global north are choosing locations in the global south for their call centers.[1] Thus, the context and environment of daily operations for these call centers is transnational on multiple accounts—their physical as well as geopolitical distance from home firms.

Statistics underscore the extent of these transnational patterns. Worldwide, employment in call centers that were outsourced to offshore locations rose from about 16% to 30% between 2002 to 2007, whereas those in onshore sites declined from 84% to 70% (Eastwood, 2005). The most common destination for this outsourcing is Asia, especially India and the Philippines. Although call center employment growth seems to be leveling and even declining in many industrialized countries (such as the United States), it is rising relatively faster in emerging economies (such as India). Employment in Indian business process outsourcing ("BPO," a sector dominated by call centers) was nearly 790,000 in 2009, up from about 100,000 in 2002 (NASSCOM, 2009). Revenues in BPO exports have also been steadily rising, from $4.6 billion in 2005 to $12.8 billion in 2009. According to the local industry experts at least, there has been no significant dip in these trends—even with the global recession of the late 2000s.

To be sure, the global south is hardly "stealing" the industry away from the north (Eastwood, 2005, p. 121). Many scholars point out that there is little evidence of a full-scale shift of the call center market from local to foreign locations (Batt, Holman, & Holtgrewe, 2009; Holtgrewe, Longen, Mottweiler, & Schonauer, 2009). In 2008, Asian countries held less than 9% of the world export market (in BPO and IT sectors combined), whereas the United States carried 60% and Europe held 31% (NASSCOM, 2009). The range of countries entering the outsourced call center business is expanding. One consulting firm estimates that there are 10,000 offshore outsourcing firms globally, located in more than 175 countries (Eastwood, 2005).

Labor dynamics of these outsourced call centers differ quite dramatically from those onshore. In particular, working conditions are found to be considerably worse in call centers of the global south: more monitoring of employees, lower quality of jobs, higher turnover, lower wages, and less unionization than those in the global north, especially Europe (Batt et al., 2009; Holman, Batt, & Holtgrewe, 2007). Even compared to other call centers *within* the global south, those in India exhibit particularly egregious conditions of surveillance (Remesh, 2008). These global call centers, therefore, are more likely to be disadvantaged by ICT relationship.

Most of the studies of the electronic sweatshop literature, however, are drawn from domestic call centers that are serving customers in their own country. Furthermore, a majority of these firms are regionally based in the global north. Due to limitations of methodology, then, these studies are missing key features and trends within the broader call center industry. (Theoretically as well, I would argue, they are also missing broader trends of globalization that are affecting even local call centers in the global south.) This calls for a reworking of the electronic sweatshop model, in its updated, more favorable form.

Pluralization of Actors

With globalization of the industry and the dispersion of actors described above comes a plurality of surveillance. The second proposition of the multi-surveillance model then is to recast the number actors in the scenario.

In the electronic sweatshop model, there are two main actors and their surveillance relationship is unidimensional. Surveillance is done *by* one group *towards* another. Managers are indisputably the protagonists. They are seen as the prime agents of technology in call centers: the sole deciders of what technologies are introduced and how they are used. Workers as the other main actor are (at best) reactive to those acts. Revised models have inserted a third group to that process, recognizing the key role of customers and portraying a triangular model of interactive service (Frenkel et al., 1999; Leidner, 1993).

With the trend of outsourcing, this two- or three-way model is being fractured, remodeled, and expanded (Poster, 2007b). In transnational outsourcing, there are several major elaborations to this model. First, there are additional actors who participate in the daily operations of the call center firms. Second, there are geographic borders placed between the actors. Third, the meanings and roles of the actors change. When it comes to the technologies of global call centers in India, then, five sets of actors emerge as central players, which leads to a pentagonal relation (Figure 1).

Managers are the local staff who run the call centers. I apply this term broadly—from the top administrators, to midlevel supervisors, to team leaders on the shop-floor—in order to examine leadership authority in all its forms. Unlike the case for in-house call centers, however, these managers may not have complete authority in the firm. They are subject to discretions of the client in the global north, and must often rearrange operations to suit those agendas. *Workers* are the employees of the Indian

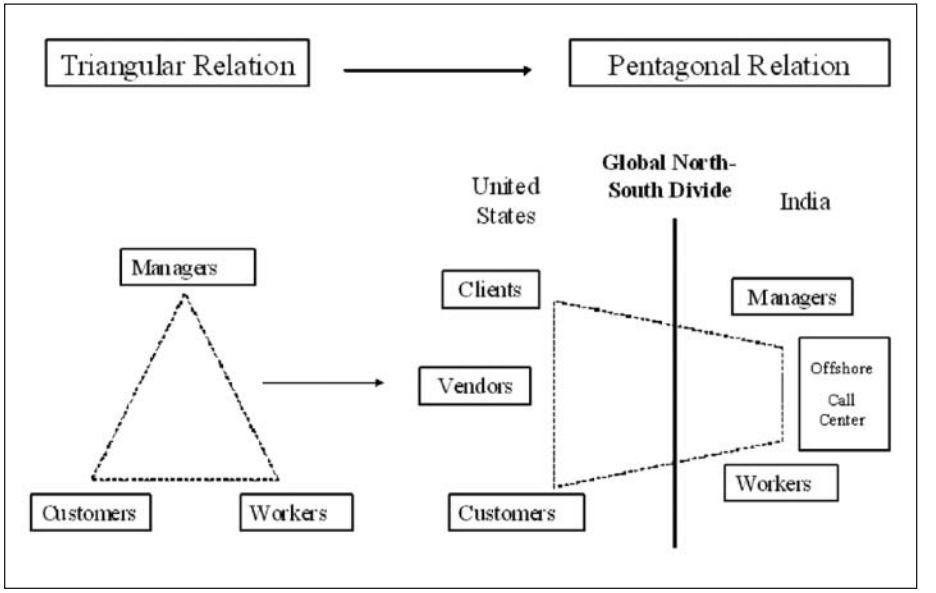

Figure 1. Expansion of interactive services from triangular to pentagonal relations

call centers. They are the operators on the phone with the customers in the global north. Employers refer to them as "agents" or "representatives."

Classic electronic sweatshop studies typically stop at this point, limiting the focus on mangers and workers. Yet this ignores a host of actors who have significant roles in surveillance. *Vendors* are the firms that design, market, and sell technologies to call centers. They are often located in global north countries, like the United States and especially Silicon Valley. They hold significant power in creating the tools for surveillance, and are often in close contact with clients to figure out and generate the most expedient tools for their surveillance needs.

Clients are the firms that purchase or contract customer support services from call centers. They are often private firms, but may be government bodies or nonprofit organizations as well. (Any given call center may be handling services for a number of clients simultaneously.) These clients, although far away, are still in charge of many routine aspects of call centers and therefore represent distant managers of the firms. Finally, *customers* are the patrons of the clients; they are the consumers whom the clients are trying to sell products to or handle questions from. They are located in the same country as the client within the global north.

The pluralization of surveillance means that each of these actors has agency in appropriating and utilizing technology for surveillance. They operate from different bases of power, however. I map these relations in a Global Interactive Service Grid (Figure 2). Two axes of authority distinguish their ability to prepare and carry out their

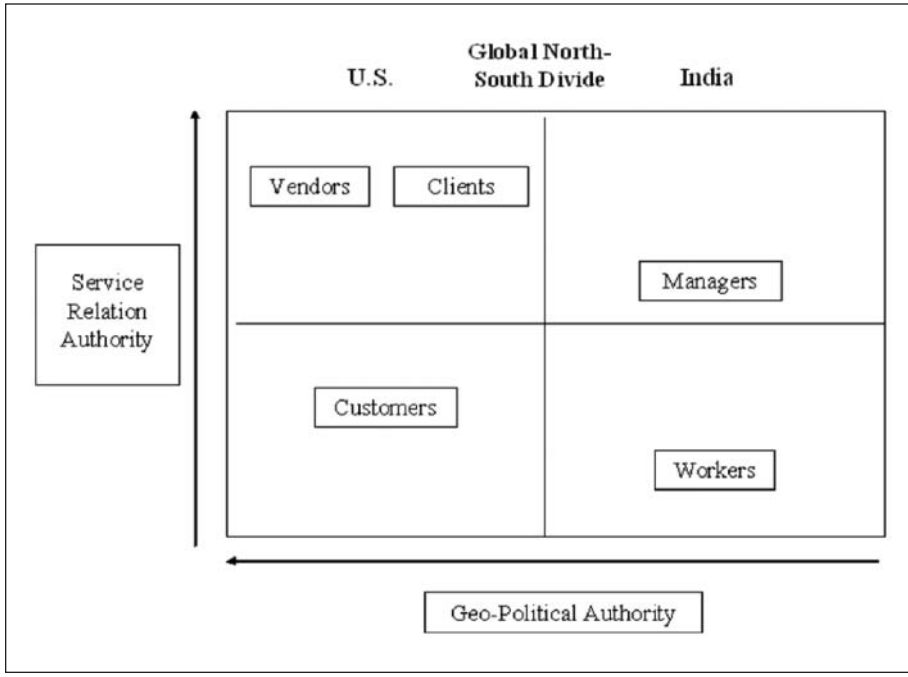

Figure 2. Grid of global interactive service relations in Indian call centers

surveillances. *Service authority* refers to labor control in the call center, and increases from bottom to top, workers to managers. *Geopolitical authority* refers to regional control in the global economy, and increases from right to left, India to the United States.

This creates four quadrants representing varying authority relations. Clients and vendors—who are located in the global north, and have economic and technological power in the call center industry—are positioned in the top left hand corner of the grid. Consumers, who are located in the global north but have low authority in the service relation, are in the bottom left hand corner. Managers who are located in the global south, but with high authority in service relations, are placed in the upper right hand quadrant. Finally, workers in India, with low service and geopolitical authority, are positioned in the bottom right corner. Although these workers may have advantages locally (as their wages and status are often higher than Indian workers with similar skills in other jobs), they are marginalized globally in their relations within the grid.

Within this map, then, there are hierarchies of power just as in the electronic sweatshop. However, the picture is more complicated, and their relations are at times contradictory, because of the following dynamics.

Technology and the Information Services Economy

The tools of surveillance have vastly proliferated beyond the static notion of "computers." As my third proposition, I argue that the medium for surveillance has moved into a full range of information and communication devices.

The basis for this shift is in the broader economy and society. What used to be primarily a production-based economy is transforming into an informational economy (Castells, 2000; Peterson, 2003; Poster, 1990). Societies become "*informational* because the productivity and competitiveness of units or agents in this economy (be it firms, regions, or nations) fundamentally depend upon their capacity to generate, process, and apply efficiently knowledge-based information" (Castells, 2000, p. 77). Information and data are increasingly significant units of value and exchange.

As the information society develops, the meaning of "computing" has changed, and so have the devices themselves. The first change is physical. Computers as objects are far less centralized and exclusive to the ownership, locations, and hands of elites. The original mainframe computers were massive, relatively uncommon, and touched mainly by technicians. The invention of the personal computer (PC) brought a smaller device that could be distributed to each work desk but was still weighted-down and stationary.

With the 21st century, however, we see the rise of mobile computing—handheld devices (like cell phones and personal digital assistants) that move with individuals. These are small, inconspicuous items that are cheaper and more accessible. They are portable to the public sphere or the home, rather than just tied to the workplace. Moreover, the information society is imbuing everyday objects with surprisingly effective surveillance capabilities. Workers, consumers, and so forth have the power to record audio conversations, take pictures and videos, and enter their own data wherever and whenever they want. These devices may not have very advanced features for information processing, analysis, and so forth, but they are remarkably adept for tactics within interactions, where they are used the most. This pushes computing—and surveillance—into a new realm.

The second change of computing is communicative. Material infrastructures (like satellite systems and fiber optic cables), combined with networking features of the internet (like e-mail for sending messages, and "voice over internet protocol" for talking) have meant that individuals are using technology for connectivity. Rather than exclusively using devices like phones, people are using computers to connect to each other, and to connect computers with other computers. The internet has become a crucial platform for subversive actions and collective organizing among marginalized groups (Fraser, 2007; Nelson, Tu, & Hines, 2001; Osler & Hollis, 2001).

The third change of computing is virtual. Computing has the ability to manipulate information even without the host of a physical object. Aneesh (2006, 2009) brilliantly illustrates how technological power is no longer exclusively within the material unit of the computer itself, but rather in the "code" or software that runs between computers. In the mode of "algocracy," code travels virtually beyond computers and across the globe. It is also self-sustaining. It can now govern significant portions of daily

operations for organizations *without* the participation of human attendants and/or a geographic base. This makes code even more difficult to patrol and resist. Elites have had more resources to commission and develop code, especially with regard to call centers, but I argue this is changing.

The information society and its transformations in computing, therefore, have altered the tools for surveillance. Electronic sweatshop scholars provided us a gift with their analyses of that early stage of computing in the 1980s and its critical impact in reorganizing labor relations (Garson, 1988; Zuboff, 1988). Yet they left an epistemological legacy—in the focus on computers—that has been relative unchallenged. Instead, surveillance is being carried out with code, the internet, and everyday technologies. All groups in the global service grid, at least to some extent, are using all three types of technologies for surveillance.

Furthermore, as the tools for surveillance change, so do the strategies. With the primacy of data in the economy, information becomes one of the primary currencies of power. In turn, all actors in the grid are encouraged and, arguably compelled, to use information as a strategy for action. Elites have greater access to information, as well as greater ability to generate and protect it, but grassroots actors are increasingly collecting their own data on elites and maintaining databases on their own constituents to use for mobilization. Thus, although technology may be the conduit for surveillance activities, information is the object that is obtained, moved, and acted upon through that technology.

Finally, a multi-surveillance framework challenges the electronic sweatshop emphasis on technological determinism, and an inevitable accumulation of power among elites as technology advances. Based on a "sociology of information technology" perspective, this follows Sassen (2002) in viewing information technology as socially constructed. Technology is neither a driver of labor outcomes in itself nor exclusively paired with managers and their interests. In fact, technology is not a source of change in itself. Rather, it is "neutral" or variable, embedded in social relations and dependent upon its context. In the case of Indian call centers, that context is the relations and dynamics of global service grid. This means that a group's power through technology is often related to its position in that system. Ultimately, as Sassen theorizes, technology has the potential to be both hierarchical and distributive at the same time.

Expanding Targets of Identity and Nationality

If the purpose of surveillance is to monitor individuals, then defining relevant characteristics of individuals is increasingly key to that process. Indeed, globalization and the information society are changing what kinds of information about people are being observed and collected. The fourth proposition of the multi-surveillance model is that the targets of ICT surveillance are increasingly intangible, personalized, and embedded in global politics.

Under classic notions of the electronic sweatshop, the objects of surveillance were the "hard" skills of workers related to productivity, for example, time to complete

tasks, number of calls taken, and so forth. Revised models of the electronic sweatshop, particularly as applied to call centers, have drawn attention to demands of "soft skills" (e.g., emotional displays) placed on workers in phone service (Grandey, 2000; Mulholland, 2004; Taylor & Bain, 1999; Thompson, 2003). The emotional performance of pleasantness is an equally important element of managerial control, as the quality of human exchange is valued in service economies (Hochschild, 2003; Wharton, 2009).

Global interactive services place added requirements on workers (Poster, 2007b). Rather than selected emotions, surveillance is expanded to full identities. Workers are assessed for their performance of coherent, unified roles. Moreover, these roles have a political theme: displaying a citizenship. This is a distinct type of labor process to that of emotion work, though clearly related. "National identity management," in the case of Indian call centers serving U.S. consumers, involves taking on American names, learning an American accent, acquiring enough knowledge of American consumer culture to make convincing small talk, and so forth.

The current project reveals how the policing of national identity extends much further in the global service grid. Managers are not the only ones doing that policing; workers are not the only ones receiving it. In fact, *all* of the groups in this study conduct surveillance concerning features or attitudes about national identity (although perhaps without the same degree of scrutiny as workers experience). This, I would argue, is another significant distinction of global versus local call center industries. As ICT services cross national boundaries, geopolitics is put at the nexus of those relations. In turn, technologies of surveillance are shifted toward monitoring those national displays.

Multi-Surveillance as a Spectrum of Power

My fifth aim is to decouple "domination" from the act of surveillance and to reveal a surveillance from below. In the electronic sweatshop model, the practice of surveillance is uniformly theorized as managerial control over workers. Surveillance is not defined in relation to any other kind of interest or motive. Yet I will argue that surveillance can be disentangled from elite agendas and activities, and seen in a wider context of agency from many types of actors. Moreover, it can even be seen as a social movement tactic, done collectively by groups in the global grid.

Surveillance is the starting point for my analysis because it captures a particular strategy that is central to the information economy—observation and data gathering. This was foreshadowed by Foucault (1979), who described a shift from coercive, physical forms of agency to those that are normative and informational. In the "art of surveillance," he charts how the "hold over the body" no longer needed to be carried out by "excess, force, or violence" but through "the laws of optics" (p. 177). The twin practices of examining individuals and collecting data on them become key for "correcting" their behavior. Indeed, that this account syncs so well with computerized practices of the information age (even though Foucault was describing practices of written documentation in the dawn of the disciplinary era) is why it is so effective as a concept today.

On several accounts, however, I depart from Foucault's theorization of surveillance (as well as related themes that tend to be repeated in the electronic sweatshop literature). I disagree first that observation and information tabulating are practices accessible only to elites. With the emergence of the information society, this is no longer true. Subordinate groups in the global service grid are in fact conducting the same practices of observation and examination, and turning the gaze of those techniques against elites. Second, I disembed surveillance from institutionalization. Whereas Foucault argues that surveillance resides within organizations and procedures (rather than people), I see it as situational. It can be used in a single act and for specific purposes.

Third, I challenge the fixed notion of surveillance as a practice of power, and the exclusive use of technology for the purpose for "domination" (Foucault, Luther, Gutman, & Hutton, 1988, p. 18). Without a doubt, domination is one (and perhaps the most common) motivation for surveillance. Yet I place this particular act within a wider frame of possibilities. *Surveillance in the global grid appears more generally as an act of agency that uses observation and data collection to induce a subsequent action in others*. This may be done for both exploitative as well as emancipatory purposes. Arranging these acts on a continuum provides a fuller view and understanding of surveillance.

If domination represents the most egregious and coercive type of surveillance at one end, then the rest of the spectrum is represented by more moderate and egalitarian exercises of surveillance. A middle position is one of leveraging, in which authority is exerted within a particular situation. In this case, it may be used by any group regardless of its initial standing. The opposite end of the continuum would represent surveillance as a social justice tactic, used by marginalized groups as a means of redressing power imbalances, regaining authority taken by elites, and resistance. Illustrating this range of surveillance practices in Indian call centers is the aim of this project.

Collective Mobilization and Digital Networks

My last proposition is that surveillance is occurring collectively through alliances and collaborations in the global service grid. The information society is facilitating the creation of networks of groups who mobilize for common interests, and even among actors who seem to be the least likely of allies.

Kling and Iacono (1988) were among the first to theorize the connection between ICTs and mobilization. They put forth a social movements perspective of technology, especially technologies of the workplace. They illustrate how widespread adoption of office computers in the 1980s was the "by-product of loosely organized movements" rather than a result of an evolutionary or predetermined path. It happened through a coalescence of multiple actors in a "computerization movement," as technology entrepreneurs, businessmen, and so forth organized together to encourage the introduction of computers in workplaces.

In opposition to this, groups like consumer advocates, civil liberty organizations, and so forth gathered to critique the euphoric narratives of the computerization movement. These groups felt computerization narratives represented the interests of wealthier groups in society, and questioned the way firms would use this technology with regard to employees and other disadvantaged populations. In turn, they formed a "counter-computerization" movement to challenge technologies that would undermine their rights. Successors of Kling and Iacono have shown how similar technology mobilizations have occurred in industries as diverse as mortgage insurance, health care, computer games, photography, and much more (Elliott & Kraemer, 2008).

Many parallels of this "computerization movement" can be made to the case of Indian call centers. Computers are no longer the only type of workplace technology, as I discussed earlier, and the movements are not dichotomous as the "pro" and "counter" mobilizations, but rather fractured into many submovements. Still, this movement-based model offers many advances over those of the electronic sweatshop concerning the dynamics of surveillance: (a) Groups mobilize in reaction to certain technologies, which themselves have politically charged meanings; (b) groups do not act in isolation when it comes to technology but, instead, organize collectively; and (c) mobilizations occur at many levels of the social hierarchy—not just by elites or, alternatively, just by grassroots actors.

Sassen (2002, 2005, 2006) provides an updated theorization of technology and social movements for the post-2000 era. She describes contemporary mobilizations as "digital networks," integrating the key factors of communication technologies and globalization into her framework. Enabled by the internet, digital networks have been three properties: "decentralized access," in which groups are enabled to action regardless of geography; "simultaneity," in which activities can be temporally coordinated; and "interconnectivity," which links the disparate localities of groups across regions, countries, or the world (Sassen, 2006).

Whereas these digital networks empower elites in profoundly new ways (i.e., for the concentration of power through finance and capital), they also have significant implications for the mobilization of marginalized groups: "The Internet has emerged as a powerful medium for non-elites to communicate, support each other's struggles and create the equivalent of insider groups at scales going from local to global" (Sassen, 2002, p. 381). This new wave of "electronic activism" has the ability to bypass state institutions, engage in activities that do not depend on joint action on the ground, and incorporate actors who do not have resources to travel (Sassen, 2005). Very critically, the current stage of ICTs has changed the capacity for transnational linkages among grassroots activists.

As I will illustrate, these ties and minimovements surrounding ICTs have enabled increasing numbers of actors to participate in the surveillance process of other groups. They have also lead to a number of alliances among the five groups in the global service grid. In turn, they undermine hierarchical relations that are central to the electronic sweatshop model.

Case Studies

The analysis is based first on ethnographic fieldwork in Indian call centers from late 2002 to early 2004. Fieldwork was done in the northern region of India near New Delhi, in the neighboring cities of Noida (state of Uttar Pradesh) and Gurgaon (state of Haryana). Gurgaon is where the call center industry began and still has the largest concentration of organizations. Three call centers were the focus of the fieldwork. They were selected through several informants—one through personal connections, another recommended by an industry association, and the third recommended by a government official. The firms represent variations within this industry in terms of size, ownership, and global positioning: BigCo, as a multinational firm, with about 3,000 employees; MediumCo, as a joint venture firm with a U.S. company, and about 200 employees; and SmallCo as an Indian-owned firm, with 40 employees.[2]

My methods involved interviews and observations. At these three firms, I conducted 50 formal (semistructured) interviews with calling agents. This includes about 15 from each firm (with a handful of interviews from a few additional firms for more breadth of comparison). Interviews were conducted in English and lasted about an hour. Sample selection was based on employee lists provided by the human resource department. Respondents were chosen randomly, although samples were balanced according to gender and occupational level. Most of the population is young, highly educated, and urban. My sample was also mostly male, at about 60% to 70%, which is illustrative of the national distribution (NASSCOM, 2006).

I spoke to other types of informants as well, through more informal, unstructured interviews. This included 20 interviews with HR managers, quality control personnel, recruiters, trainers, nurses, and so forth. Another 15 interviews were conducted outside these firms with experts and professionals from the community, such as representatives of industry associations, government officials, and employee associations. To get a feel for the experience of call center work, I observed the "production floor," attended training seminars, joined agents for dinner in the cafeteria, and so forth.

A second type of data collection involved online research. As many of the technological activities of these groups are occurring and/or being presented on the internet, I conducted further research of original websites in 2009. For instance, I visited the pages of Indian call center labor organizations and discussion forums. This methodological strategy was also important for gaining access to groups in the United States—the vendors, clients, and consumers. I examined several corporate internet sites and viewed their "webinars" (online videos about their products). I visited websites of consumer organizations as well, and conducted interviews by phone with experts in the U.S. call center industry. (See the appendix for a list of these sources.)

I then triangulated or layered this data with material from my Indian-based interviews, gaining a richer perspective on customers, clients, and vendors from the people who interact with them on a daily basis. The limitation of these strategies, however, is that the study does not include firsthand interviews with many of the groups in the United States. However, their voices are presented through other means, like their original materials and documents.[3]

Technologies of Multi-Surveillance

Here I review the five main actors in Indian call centers and their unique agencies in surveilling other groups in the global service grid. Through a multi-surveillance perspective, one can see how each of the actors mobilizes technology independently for their own purposes.

Vendors

Vendors provide the tools of surveillance. They design, develop, and market surveillance technologies for the client firms, who then have abilities to monitor their consumers, managers, and workers. Much of this technology is in the form of computer *software programs* that carry out surveillance on their own. "Interaction analytics," for instance, is a line of software that can listen and analyze the audio conversations of customers and workers automatically. It is used by more than 75 of the Fortune 100 firms and the world's top 10 banks. Some of the leading firms are NICE Systems, Verint, and Cisco (see the appendix). In conjunction with the larger industry, they are earning profits of more than $400 million in annual sales.

This software can examine all of the calls made in a firm and deliver output to the client. Problematic workers can be tagged and profiled with individually tailored screens of pie charts, bar graphs, and other data. The analysis of their skill and effectiveness can be broken down by segments of the call, from the "intro" to the "wrap-up," and by time of day and day of the month. Workers can also be identified by how close to the topic they stayed, that is, the percentage of "related small talk" versus "unrelated small talk," silences, and hold times (see appendix: Nice Systems Webinar).

The most intrusive feature of this software is its "emotion detection" feature. This enables managers to technologically surveille the most "human" part of the service relation—the emotional engagement between customer and worker (Figure 3). It uses the wave frequencies of a person's voice to detect a wide range of human emotions—irritation, duplicity, delight, or sexual arousal (Gurstelle, 2005). Words themselves are evaluated for emotional content (like "frustrated" and "angry"). Features of the sound like pitch, tone, cadence, and speed can be assessed for more subtle indicators of emotion. Rapid speech or rising tone can signal excitement. Slower speech or moments of silence can indicate distress, discontent, or unwillingness of a consumer, according to a representative of Cisco, to sign up for a health insurance plan.

Interaction analytics has an additional purpose as well: to surveille the process of national identity management. For call centers in India, this software monitors how well Indian workers are acting American, and how well customers are buying it. Major call centers GE Capital and Convergys, among the largest in India, use emotion detection to enforce accent neutralization (Mohan, 2006). They also use emotion detection to gauge reactions and resistance by customers in the United States and United Kingdom to foreign accents (Hamblen, 2006).

Figure 3. Emotion detection software: "E" bubbles and brightened wave lines signify heightened emotions by workers and customers
Source: Verint Systems (see appendix).

If this software can take over the manager's job of surveilling workers and consumers, other products from the vendors can take over the job of the employee. The V-rep, or virtual representative, is a fully automated version of the call center worker. It may appear to look or sound human but is run by code. Some V-reps are just voices on the phone. Vendors call these "interactive voice response systems" or IVRs (Tugend, 2008). They may speak out the options for you to say or press when you call a company for customer service, in order to collect information or guide you to a live agent. Many of these human-sounding automated menus have defined personalities and names, like "Julie" at Amtrak.

Other V-reps have a visual form that you see on the internet when logging onto a company website for service (Figure 4). It shows a computer-animated image of a person who might move and talk, and/or respond with text-based answers if you type in a question. These V-reps are being used in some cases as the initial frontline agents for U.S. firms, before consumers are routed to Indian call center workers.

Both of these technologies—interaction analytics and V-reps—reveal how the interactive service industry is a new frontier for software vendors. Because the exchange between consumer and worker is carried out through devices of the phone, computer, and internet, vendors are experimenting with a multitude of software packages that can manipulate virtualized sight and sound. These vendors have considerable influence in setting the technology agendas for clients and managers of call centers. However, we will also see that they are sometimes more enthusiastic about such technologies than other groups.

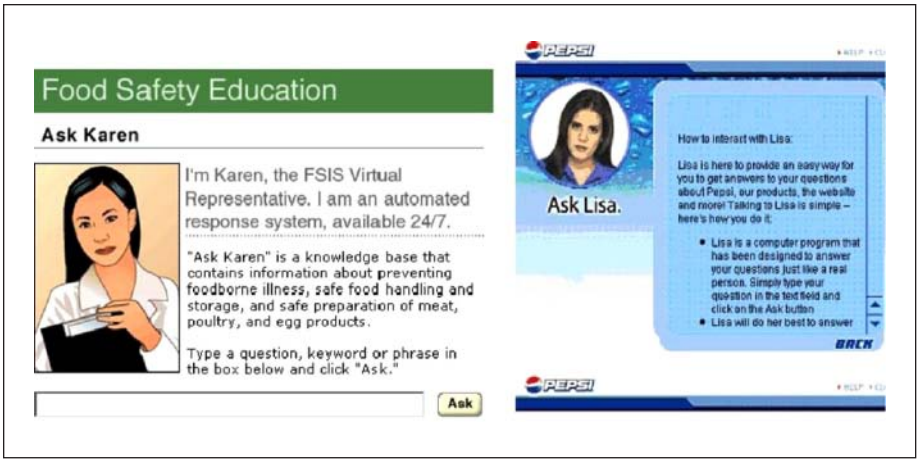

Figure 4. Virtual representatives: Karen at the U.S. Department of Agriculture and Lisa at Pepsi
Source: USDA and Pepsi (see appendix).

Clients

Clients are the distant—or virtual—managers of the global call centers, and their surveillance reflects interests in keeping tabs on all the staff abroad, as well as the consumers at home. They may be less visible in the day-to-day operations, but they hold much of the authority over which technologies are used in offshore call centers and how they are used.

Their surveillance is predicated on somewhat contradictory agendas: relinquishing authority of the shopfloor to managers in India, and simultaneously getting it back. On one hand, they want to use the vendor products above to automate and/or monitor the tasks of both the workers on the phone and the managers who are supervising them. Yet on the other hand, they want to participate in this oversight process themselves. This requires more diverse sets of technologies than those provided by vendors alone.

Clients at the larger firms in my study, BigCo and MiddleCo, install *autodialers* to take over the job of the worker and manager. This is a device that automatically feeds phone numbers to the agents' computers. It decides whom to call, when to call, and patches through the connection. This drastically increases the speed of work for employees, while reducing their discretion over it. However, clients also enter their own numbers in the autodialer, disguising themselves as customers, so that they can personally (and transnationally) carry out secret monitoring of calls. They use the internet to send training materials for managers, but they also use *speakerphones* to participate directly in those training sessions themselves and to interact live with employees, which occurred at SmallCo.

Clients authorize consumer information and databases to be installed on *shopfloor computers* for workers to use during the call, but then lock those computers down

physically. They strip the units of any drives, ports, and sometimes keyboards, so that even managers do not have portable access to any kind of information. A training manager at MiddleCo explains,

> All the systems in our company, all the PCs in our company would not have a floppy drive, would not have a CD drive. You cannot type, you cannot download anything, you can't do anything. Everything that I'm doing here, I'm not allowed to carry hard copies outside this place, even for my own personal records. I would not be taking it home. I should be working here only on that.
>
> Basically, we do it for the client; we have a complete security policy. At the time an employee joins, he signs that paper which is the Nondisclosure Act. Everything is under the Nondisclosure Act—anything and everything within this company. Clients are very particular about those things because the database is very expensive—from the client that sells the database, for the lead that you call. If I take it outside, I can sell it to anyone. We don't want that to happen, so that's the reason why we don't take any papers outside, we don't take anything.

Thus, virtual code is not the only technological tool that is valuable to clients in global call centers. These routine and very material devices are key elements of their authority relations with employees as well.

Managers

Managers of global call centers have a somewhat nontraditional role compared to those in local sites. Due to the fractures of the global grid, and the authority held by clients, Indian managers are *not* the main agents of technology in call centers. They have many similar interests and targets of surveillance, but their job vis-à-vis technology is more often enforcer and adapter. Managers are responsible for the hands-on oversight of technologies, for maintaining and putting into action the complex software (like interaction analytics). More important, they are the ones who tie the output of the software to rewards structures in the firm. They tag the "defects" in the script (or "telephone etiquette" as they say), translate them into detailed categorizations (e.g., high, medium, low risk), and apply them to job demotions or promotions.

The agency of Indian managers also comes in another form: in innovating the use of everyday technologies. With fewer resources at their disposal than the clients, managers tend to be more resourceful with their selection and application of technologies. They find ways to use alternative platforms and objects on the shopfloor to extend their surveillance of workers. At SmallCo and MiddleCo, they install privately run *intranets* (not to be confused with publicly accessible *inter*nets) to facilitate worker self-surveillance, as employee performance is translated into scores and then posted for workers to view. They use routine devices like *telephone headsets* in inventive ways: to tether workers physically to their stations; to monitor live calls (whether workers are aware of it or not, a process called "barging"); and to aid in the process of

national identity management, by technologically blocking out ambient noise, and by triggering the virtual journey to another country, as Anjali, the trainer at MiddleCo, explained to me.

Yet managers engage in another kind of surveillance as well—one that turns the gaze back around to vendors and clients. Although they are dependent upon these groups for developing and supplying the technology they use in their firms, they also have some skepticism about it. As one industry director told me, he keeps a close eye on technology developments in Silicon Valley, and vocalizes publicly his criticism of projects that he believes benefit the United States more than India.

Customers

Consumers introduce a new strategy of surveillance to this discussion. Instead of using it as power and authority like the actors above, they use surveillance as a means of counterhegemony. It is a social movement tactic, for mobilizing opposition against the technologies deployed by vendors, clients, and managers above.

With consumers, we also see a shift in the types of technologies used in the global service grid. We move even further away from the elaborate technologies of software code and towards the more mundane and mass technologies. This involves moving from the industrial sector into the public sphere—and into peoples' homes. Consumers use *caller ID devices* on their *cell phones*, *household phones*, or as a separately attached box, to surveille the call centers. By screening the calls that come into their homes, they can identify who is on the line, from where, and especially, if they are overseas.

As first revealed to me by Deepa at MiddleCo (indeed, workers have a lot of experience and familiarity with consumer technologies), consumers also use "telemarketer detectors" to block and/or deflect the calls through their *home computers*. Software programs linked with modems can scan for unwanted phone numbers, reject them before they ring the phone, and play selected outgoing messages to chase the caller away. Moreover, specialized "caller ID spoofing" services on the internet allow consumers to alter their identities when making calls—by changing their phone numbers (i.e., those appearing on recipients' caller ID screens), and changing what their voice sounds like (its tone and even its gender). Consumers have used this to maintain privacy when interacting with call centers.

The internet becomes a key player in the agency of consumers. *Websites* like GetHuman.com[4] and DailAHuman.com (see appendix) mobilize the collective power of consumers to resist the technologies of elites in the grid. They surveille client firms by enlisting the public to rate the effectiveness of customer service, tabulating the results, and creating a master list of firms on the website. Get Human started with a list of 10 names, and now has more than 500 entries. The site receives at least 10,000 hits a day, millions over the period of several months (English, 2005; Tugend, 2008).

They surveille vendors by keeping abreast of IVR and V-rep technologies and reporting products and practices on the website. They use the website to initiate boycotts and e-mail campaigns against vendor firms that develop software for automating

customer service. They also enable the consuming public to resist these technologies while on the phone with the firms, by divulging secrets to bypass the automated phone menus and get transferred to a (well-protected) human agent.

Their targets are not just elites in the global grid, however. Simultaneously, these consumer groups oppose Indian workers by surveilling foreign accents and poor English, and marking them with red flags on the website master list (Figure 5). Ranting rhetoric of hypernationalism and xenophobia on the website—by the leaders and members alike—serves to reinforce the geopolitical status of U.S. consumers above Indian workers.

This kind of rhetoric mirrors what workers told me they hear on the phone—not in every call, but regularly during their shifts. Indeed, scholars have recognized how verbal abuse from customers constitutes an "injustice" for call center employees and has serious consequences in the form of emotional harm (Grandey, Dickter, & Sin, 2004; Rupp, McCance, & Grandey, 2007). The case of global call centers reveals how this abuse is magnified, or at least has a unique character, when it is explicitly national or ethnic.

Workers

Workers may be the quintessential *objects* of surveillance in the classic electronic sweatshop model, or slightly better as *resistors* of surveillance in the revised model, but they are full-on *agents* in a multi-surveillance model.

For one thing, they conduct their own monitoring of several different groups in the global grid. Workers surveille consumers when they are in the midst of conversation on the phone, assessing their level of civility. Then they keep *digital logs* on their computers of customers who are especially unruly and express antiforeigner abuses. Aditya at BigCo describes how he can access this database during his conversations:

> I have had one person who said, "Are you in India? I don't want to talk to an Indian." But I had checked out the case for that particular person [on the computer], and it was mentioned that he had this problem with anyone he called. A major racist.
>
> *So that's written in the file?*
>
> Well of course. You have to mention it so that the next technician who takes the call is not taken back by surprise. It's good that you mention it, so you know particularly how to handle this customer. It becomes easy for you, not that you have to ridicule him because of that, and what he has in his mind. It's just that you have to make him more comfortable, and make him realize that even if he is talking to an Indian, that anybody that outsources his process is equally capable of taking care his concern.

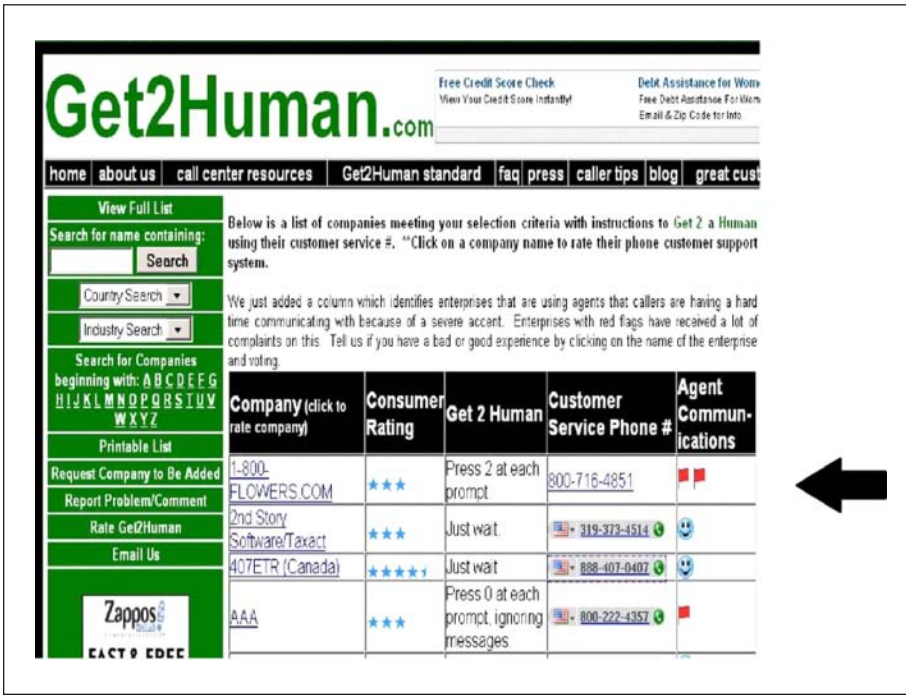

Figure 5. Red flagging: Consumer websites monitoring workers with poor English in global call centers
Source: Get2Human (see appendix).

Workers also surveille managers and clients, by keeping a watchful eye on call center firms and posting the information online. *Online forums* like Gurgaon Worker's News (see appendix) include a regular "Corporate Watch List" that reports on firms with egregious practices like unfair dismissals and refusals to pay wages. Employees develop their own "social networking websites for trade unionists" like unionbook.org (see appendix), which was designed with the help of Indian ICT associations (below).

Workers engage in subversive activities with *routine technologies*. This sometimes involves using everyday objects—belonging to customers, supervisors, or clients—to resist their practices and/or authority. They log onto client computer systems in the United States to create fake e-mail addresses, match them to existing consumers in their database, and then feed positive reviews of their performance in the ratings system (see Gurgaon Workers News in appendix). They use the customer's home computer to control their own time on the job. Help-desk workers instruct customers to do useless, time-consuming tasks like restarting their computers to get a break in their work (Noronha & D'Cruz, 2006).

Moreover, workers put technology at the core of their resistance strategies—so much so, that they invent new kinds of collective action. By using e-mail and the

Figure 6. Indian e-unions: UNITES website organizing call center employees
Source: UNITES (see appendix).

internet for mobilizing, they cross over from purely street activism and/or bureaucratic structures into the virtual realm of *eUnions*. Some, like the Information Technology Professional Forum (ITPF) and UNITES Professionals India (see appendix), are identifying themselves as "online organizations" and "e-Unions." Others, like BPO Union (see appendix), have vowed to "desist from any activity *except creating a strong online platform*" (Sachdeva, 2008). The e-Unions enable online petitions, posting of charters, coordination of live actions, and transnational networking (Figure 6). The virtual context also allows workers a space to coalesce, when real-life meetings in Indian call centers are thwarted by the temporal disjuncture of night work (Poster, 2007a).

Although these associations have not abandoned mobilizing on the ground or in person, their prime strategies have shifted towards "electronic activism" (in Sassen's terms), and in some cases, so have their organizational identities. In turn, several e-Unions have succeeded in reversing discriminatory practices by call center managers, and in gaining collective bargaining agreements, discussed more below. The effectiveness and longevity of these enterprises have yet to be determined. Still, in a context of labor organizing that has so many obstacles, it is significant that many of the mobilizations by Indian call center workers are occurring within an ICT platform.

In sum, review of these technologies illustrates the pluralization of surveillance in Indian call centers. These devices reflect unique acts of observation, information documenting, and digital cataloging by each group. This analysis also confirms the power differential, described in the electronic sweatshop framework, namely that elites are benefiting from their devices in ways that subordinates cannot. However, with a multi-surveillance model, we can move beyond arguments that technology is a tool for elites only and that it is inherently disempowering for subordinates. Instead, these cases reveal agency by multiple groups with regard to technology, and capacities of technology that are both disruptive and transformational.

Proliferating Digital Networks

Surveillance in the global service grid is not only pluralized, it is networked. The grid disperses actors and reifies hierarchies between them, but it also does something else—it connects actors together virtually, through ICTs. Through the various capacities of the information society, actors come together transnationally and across lines of authority, forging alliances that might not have been possible previously. This has implications for undermining hierarchies, as the forces of surveillance are realigned and directed at new targets.

Across service authority lines. Some networks are formed across lines of service authority. For instance, even though they are at odds in the labor relationship, Indian managers ally with Indian workers. Some supervisors oppose the management principles embedded in the software from the U.S. vendors—like individual performance scoring for sales—and empathize with workers who act collectively to meet sales goals. At SmallCo, a manager turned off or ignored the performance scoring functions so that employees could help each other reach targets:

> Here, we try to work on a level where everyone takes care of each other. If once or twice someone is not able to perform, or if somebody's not feeling well and is not able to do his job, and somebody else is helping [that person], you ignore it. That is what the Indian culture is about. That's something that comes naturally to an Indian. Once he is satisfied with he has achieved his target—or even if he hasn't achieved his target—they will help their friend.
>
> *How do you know this is happening? Do the team leaders or employees tell you?*
>
> No, they will not tell me. If they tell me officially, I'll fire them. The individual performances have to be looked into. If the person who's not able to perform is helped once or twice, okay. But if everyday if it is happening, that means he is not giving the correct picture of his performance.

In other ways too, these managers empathize with workers, such as about the level of routinization in the ICT work, and the amount of abuse from U.S. customers it yields.

Thus, the cohesion formed between Indian managers and workers is based on a regional affinity and a shared position within the same geopolitical axis of the grid. They have common interests in promoting local employment through the Indian ICT industry. Furthermore, they are similarly opposed to practices by actors on the other side of the grid in the global north—the consumers who express hostility, and the vendors that develop exploitative technology.

Across geopolitical authority lines. Groups also network across geopolitical lines—most notably, Indian workers and U.S. consumers. These groups have many points of tension, but still they work together individually and collectively to oppose the elites in the grid.

There are many cases of alliance that take place interactionally, through the phone calls themselves. Consumers use online ratings systems and personal telephone calls to praise workers who have been especially helpful to them. Workers refuse to input

data into their computers and make sales from consumers who are especially at risk. Vinod at SmallCo describes one situation:

> There was an old lady, I said "Ma'am, tell me, do you live alone?" and she said, "Yeah, I am staying all alone. There is no one to look after me. I cook my meals. I do it all on my own." And I said, "How do you support yourself?" That is my first question that I ask, because it [the product] is $250. She told me, "Honey, I am on social security." I said "How much is that?" And she said "It is like $900." So I said okay, and she gave me all of her account information, social security number, and everything, and she was very eager to give a credit card. And I told her "Ma'am, listen, never ever provide your account information, no routing numbers—never give it to anybody." She was 62 years old. So if I come across someone with a disability, I just leave it. I tell them, "Don't do it. They are going to take all the money out of your account." You can do it with young people who are good enough to earn money, but with old people, I don't do it.

Workers also press pause buttons, suspending the recording of calls, so that they can have candid discussions with consumers about who and where they are. As workers and consumers both have interests in good service relations, they work together individually, even when it means subverting client directives.

In many cases, it is the vendor and client technology itself that bring these two groups together. Both customers and workers oppose the automated agents (V-reps, IVRs, etc.) and act in parallel and intersecting ways to undermine those systems. Workers help consumers by divulging the secret tips from their employers on how to bypass automated menus. Consumers wage legal campaigns against client technology like autodialers. In fact, U.S. consumers are one of the main advocate groups for Indian workers, whether they realize it not. Though their bid with vendors and clients to "Get [a] Human" on the phone, consumers are fighting to preserve jobs for live workers in customer service.

Indian workers are increasingly aware of how alliances with U.S. consumers and the wider public can empower them. BPO Union is initiating a strategy to target a new group in their labor disputes—not the employers, nor the clients which contract services from them, but rather the shareholders of those firms in the United States. Workers hope that this group, which holds a certain amount authority over the clients, will be more sympathetic to their causes. They also hope shareholders will be motivated to discipline unwieldy Indian managers through their sensitivity to downgraded stock prices from bad publicity over labor unrest.

Outside the grid. Finally, the groups form networks outside the grid in their technology pursuits. Vendors network with research institutions, universities, and consulting firms that are developing speech recognition and affective computing technologies for use in their automated call center systems. Clients network with call center industry associations and third-party customer service ratings agencies (like HyperQuality). Indian managers network with local call center associations (like the Business Process

Industry Association of India, and National Association of Software and Service Companies), as well as with state IT officials.

Networks form among the subordinate groups in the grid as well, this time for the goals of social justice with technology. American customers network with consumer advocacy associations (like the National Consumer Law Center; see appendix), privacy movements, and the media to expose client abuses. Indian worker associations network with local labor unions (like All India Trade Union) and technical colleges that provide formal legitimacy.

Yet the most novel and potentially transformative networks are those that are transnational. Indian workers have organized with U.S. labor groups, for instance, to oppose practices of multinational call center firms. Activists from the U.S.-based Jobs With Justice have partnered with India-based New Trade Union Initiative (representing workers at General Electric in India) for an international tour on call center rights and ongoing joint activities (Centre for Education and Communication, 2006).

Likewise, Indian workers have aligned with European state organizations and employee unions. At the time of my fieldwork, ITPF was receiving its funding from the Belgian government. This state had a policy initiative to support labor groups in developing nations (see appendix: ITPF). Furthermore, ITPF was founded (as was UNITES) through the financial support of Swiss-based Union Network International. Leaders in Switzerland had a sent an organizer from Sri Lanka to set up the group in India. Hence, multicountry transnational ties of both finance and knowledge were key for subsequent mobilizations at the local level. Now these groups are taking off, organizing almost 10% of the Indian ICT outsourcing workforce in just the few years that it has begun (see appendix: UNITES website). Thus, these cases of sustained and institutionalized organizing among Indian call center employees have occurred through platforms that are transnational as well as virtual.

Technology therefore facilitates alliances both outside and across the grid. In some cases, it also becomes the trigger that inspires the mobilizations of various groups. Groups are networking together in part *because* of the development and use of particular ICTs within the interactive service relation. In turn, even disparate groups across lines of authority in the grid have common interests vis-à-vis call center technology.

Outcomes of Multi-Surveillance: Destabilizations of Authority in the Global Service Grid

Without a doubt, certain technologies of surveillance are hierarchically embedded in the global service grid. Elites have access to devices (like code, intranets, autodialers, etc.) that are more advanced and more wide-ranging in scope. They run automatically, they retain and process massive amounts of data, and they are intrusive on peoples' identities and inner beings. Yet at the same time, the capacity of technology in Indian call centers is transformational as well. In turn, there are many empowering outcomes of surveillance for workers and consumers.

Some of the gains are *interactional*, occurring between individual participants in microsettings like the shopfloor or a conversation on the phone. During any given call, for instance, an Indian worker may be surveilling a U.S. customer, and vice versa. When these actions are done for control, they obviously lead to harm (e.g., the firing of a worker, if a consumer complains to the manager; exploitation of a consumer, if worker coerces a sale). However, these agencies with technology can also yield benefits of personal gain and/or mutual cooperation (e.g., when a worker digitally protects a vulnerable consumer; when a consumer enters high performance ratings that lead to a worker's promotion).

Surveillance by subordinate groups also leads to coordinated *virtual* protests which are disruptive for client firms. The Get Human website is a case in point. Consumers are using their collective knowledge to undermine automated menu systems and challenge the corporate use of technology to dehumanize customer service. By setting up an interactive master list that consumers can contribute to (with their own learned tricks) and use when calling firms, this group enables actions which are individual but widespread. These may be occurring at different times, but can accumulate and aggregate in their effect, creating a powerfully subversive outcome.

This kind of collective agency has produced some tangible gains. Consumer backlash against the V-reps initiated a pivotal downturn in the automating of customer service. In the mid-2000s, firms started to phase out their virtual call center agents (like Claire at Sprint and Katie at Dove), and subsequently many of the vendors went out of business. Although the reasons are many, a primary factor was that the "end-users rejected the over-personification, which made it [the customer experience] worse rather than better," and ultimately "it backfired" (Balentine, 2009).

Other outcomes of grassroots activism are *institutional*. Perhaps one of the most wide-ranging achievements against call center elites has been the U.S. Telecommunications Protection Act, passed in 1991 (with subsequent amendments), which has broad consequences for curtailing technologies used by clients and managers (see appendix: Federal Communications Commission). Among the many provisions, it limited the use of autodialers and artificial voice messages; it required call centers to transmit their phone number so that consumers can identify them with caller ID devices; and it established a federal Do Not Call List, prohibiting call centers from dialing the numbers of those consumers.

Many of the stipulations of this act apply to call centers abroad that are dialing the United States (such as those in India). This legislation, therefore, has benefits for workers as well as consumers. Consumers gain more human contact (and less automation) in customer service, more information about calls coming into their houses, and more authority to block them. Workers gain a reprieve in some cases from the speedup of autodialers, and pressure on clients to hire live agents instead of automated systems. The state is a central actor mediating this process, but aggressive mobilization by a number of groups in the United States, including consumer organizations, privacy groups, and legal advocates, was critical for the outcome of this legislation.

Institutional gains have been achieved by workers in India as well. E-Unions in India have seen several victories with respect to call center employers. BPO Union was able to bring action against Delhi Call Center for reportedly holding employee salaries. Their strategy was an e-mail campaign, whereby individual members and the leadership sent messages pressuring the CEO to pay out the wages (BPO Union, 2008). In addition, BPO Union has acted on behalf of workers at IBM Daksh and Evaluserve. UNITES has achieved collective bargaining agreements with at least four Indian firms, Excel Outsourcing Services, e-Merge Business Processing, Infopoint, and Transact Solutions (Noronha & D'Cruz, 2009).

Theoretically, these events call for a reworking of dynamics in the structural hierarchies of surveillance. Starting from the top, a multi-surveillance framework challenges the uniform, unchecked practice of control through technology by elites. Because of the dispersion of the global service grid itself, power is more decentralized. It no longer resides in the single hands of managers. Instead, it is distributed among different types of elites, including clients and vendors.

This power is also at times fractured. Supervision over call center operations is divided between clients and managers, and across global north and south. This leads to contradictory and sometimes competing interests among the actors, for instance, in the way that Indian managers ally more closely with their Indian employees than their U.S. clients. In similar ways, there are tensions between vendors and clients, and managers and vendors. Finally, elite power with technology is hardly invincible or final. Counter to the electronic sweatshop imagery of the inevitable upward path of control, elites in global call centers do not have unrestricted authority. As I have shown, workers and consumers pose serious challenges to corporate technologies, and in turn elites are forced to retreat on certain strategies.

Moving to subordinates, a multi-surveillance framework calls into question the disempowerment of groups at the bottom of the hierarchy as well. Workers in the classic electronic sweatshop model have little agency at all; or in the revised model, their agency is limited to reactions against preexisting elite technologies. However, this study reveals subordinate groups (employees as well as consumers) are developing their own surveillance strategies. They are proactively creating new virtual and informational tactics, with independently generated tools, that induce action in employers. For example, they use their own *technologies* (as consumers use caller ID boxes and spoof cards to gain authority over dialing systems and call center workers). They create their own *websites* (as workers use Gurgaon Workers News and UNITES to mobilize their constituents and conduct surveillance).

Subordinate groups also show independent agency in developing their own informational strategies—like databasing. Employees and consumers have taken over what Foucault theorized as the core mechanism of disciplinary power: techniques of observation and examination. They are monitoring groups, collecting information on them, cataloging the data, and at times publishing it for collective use. Workers, for instance, have databases on several groups in the global service grid: on *consumers*, as they log temperaments and racial abuses in their computer systems; on their

own *members*, as digital information like e-mail addresses become the only means of coordination between virtual members; and on *employers*, which they post on the "corporate watch" pages of their websites to warn future employees and to incite collective action.

Furthermore, workers are conducting this informational surveillance *against elites*, and at times the results are very effective. An illustrative case of databasing comes from call center employees in an emergency services organization in the United Kingdom (Bain & Taylor, 2000). Noting critical errors in the computer system they used (like where fire, police, and ambulances should go), and receiving no response from supervisors, workers took it upon themselves to monitor and catalog the mistakes over a period of time. Afterwards they presented the compiled data to groups outside the firm like consumer and media organizations. These actions eventually landed the issue in Parliament, and finally back to the employers of the firm, who then rectified some of the technical problems. Labor organizers suggest that databases will increasingly be a critical tool of activism for call center unions. Centralized union offices can conduct research on corporate practices and post it on their websites. Accordingly, smaller branches of the association can access the information for their grassroots campaigns, while labor dispute negotiators can use it in the bargaining process (Darlington, 2004).

This suggests that Foucault's notion of surveillance can be turned on its head. If the purpose of surveillance in his model is the "corrective training" of workers by managers, then a multi-surveillance framework shows how the same thing can be done in reverse—a corrective alteration of corporate behavior through surveillance. Clearly, it is not done on the same scale or with the same force. But with the growth of the information society, the potential for worker agency with surveillance is expanding.

Conclusion

The empirical exercise of cataloging various technologies used by groups involved in Indian call centers has had a theoretical aim: to illustrate the practices of multi-surveillance in a "global grid of interactive service." Vendors design *emotion detection software* to monitor the affective and identity performances of workers; clients use *locks on computer terminals* to obstruct worker access to data; managers use *headsets* to invoke national identity management; customers use *answering machines* to observe and block telemarketing calls; workers use *e-unions* to create new organizing platforms to overcome the barriers of time and distance among local members and global allies. Surveillance is no longer the domain of managers alone. All of the actors in this discussion observe and monitor the practices others through technology. With the rise of the information society, a wide range of groups are able to engage in these acts, including those who have traditionally had less access to technology like workers and customers.

Multi-surveillance is meant to provide an alternative framework to the classic model of surveillance presented in the electronic sweatshop literature. This challenge

starts with the meaning of technology itself. Rather than finding the computer as the only medium of surveillance, this study shows how groups are using code, networked communications, and everyday devices as well. Many of these technologies are being deployed transnationally. Individuals or groups in different parts of the world are able to observe and influence action in groups elsewhere through the use of the ICTs.

Furthermore, this study challenges the singular pairing of technologies with certain groups hierarchically. Even though elites have more access to and power with advanced technology, some of their most effective forms of surveillance are carried out with mundane objects like headsets and speakerphones. Alternatively, subordinates are increasingly using code and complex networks for their activism. As Indian ICT workers have benefited from a strong educational system in technology and science (especially engineering and software), they are uniquely positioned to apply such skill to their activism.

This study finds, second, a spectrum of motives and agencies with surveillance. Domination is evident as elites use technologies like interaction analytics to centralize power over thousands of employees simultaneously, for the purpose of standardizing their behavior. Yet this is not the only form of surveillance. Others are more moderate, such as the situational practice of leveraging (like when workers manipulate consumer technology to take a break on the call). Most important, some tactics are justice-oriented (like when workers seek to monitor and undo abuses by employers). This analysis seeks to reframe surveillance as social movement strategy—one that is used for the purpose of rebalancing power in favor of the marginalized.

A third finding is that features of identity are targets of surveillance throughout the global service grid. *Emotional* displays are monitored by all participants: Clients and managers are detecting the anger, pleasantness, and so forth of workers and customers; customers are rating the level of hostility of workers and reporting it on client surveys; workers are assessing the hostility of customers in the call and logging it in their databases. *Nationality* displays are checked as well with technology: Workers are rating the level of racism and xenophobia of customers over the phone; customers are gauging the language proficiency of workers; clients firms are surveying how resistant customers are to foreign workers. Checking up on geopolitical features of other groups is now a routine part of interactive service technologies. In turn, it is also a main agenda item for organizing by grassroots groups. Elaborating my previous research on "national identity management," therefore, I find that is it not just managers who keep track of identity and political markers. In fact, this surveillance is being done, in some form, by all the groups in the global service grid.

Last, this analysis has illustrated how the practice of surveillance (and deployment of technology more broadly) is done as a networked activity, not in isolation. Technology provides the medium for alliances both within and across the global service grid, as electronic communications collapse geographic distances and enable linkages across national borders (Sassen, 2006). In the process, many unlikely alliances form across lines of service authority (worker-manager) and geopolitical authority (global north–global south). This recasts theories of technology mobilization from

the dichotomous model of computerization and counter-computerization movements (Kling & Iacono, 1988). Instead, we find a variety of mobilizations surrounding ICTs that, moreover, do not fit neatly into categories of technology-haves and have-nots.

The outcomes of multi-surveillance are wide-ranging, from the interactional, to the virtual, to the institutional. Even in the context of Indian call centers, where there are few formal unions and where scholars have all but given up on collective action, we find a full stock of subversive and networked activities through ICTs. Whether these multi-surveillances will pose viable challenges in the long run to the fundamental power relations between managers and workers in global call centers remains an intriguing question.

Future research should examine these groups more carefully, which was a limitation of this study regarding data from the actors in the United States. It will also be interesting to see what happens in other national and transnational settings where global call centers operate, and how practices of surveillance in different social environments, technological infrastructures, and local agencies compare to those of India.

Appendix

Selected List of Websites and Expert Interviews (Names, Addresses, and Date Visited)

U.S. and Global Vendors

Cisco, www.cisco.com, 11/17/09
Verint, www.verint.com, 11/17/09
NICE Systems, www.nice.com, 1/19/09
NICE Systems Webinar: Nat Petouhoff and Aviad Abiri (2008), "How Customer Interaction Analytics Drive Exceptional Customer Experience and Loyalty," https://crmxchange.webex.com, 3/31/09.
Siemans, www.enterprise-communications.siemens.com, 6/9/09

U.S. Clients and Industry Consultants

Enterprise Integration Group, Phone Interview with Bruce Balentine, 6/5/09
Pepsi, http://lisa.pepsiworld.com, 6/9/09
U.S. Department of Agriculture, http://www.fsis.usda.gov/food_safety_education/Ask_Karen/index.asp, 7/8/09

Indian Firms and Industry Associations

Business Process Industry Association of India, www.bpiai.org, 11/18/09
National Association of Software and Service Companies, www.nasscom.in, 11/18/09

Vcare, http://v-carecallcenter.blogspot.com, 11/1/09
Wipro GE Healthcare, http://www.gehealthcare.com, 11/1/09

Consumer Associations and Advocates

Dial A Human, www.dialahuman.com, 6/1/09
Federal Communications Commission, www.fcc.gov, 4/7/2009
Get Human, www.gethuman.com, 3/4/2009
Get2Human, get2human.com, 3/4/2009
National Do Not Call List, www.donotcal.gov, 4/7/2009
National Consumer Law Center, www.consumerlaw.org, 11/17/09
SpoofCard, www.spoofcard.com, 8/25/2009

Indian Worker Associations

BPO Union, bpounion.worldpress.com, 5/15/09
Gurgaon Workers News, gurgaonworkersnews.worldpress.com, 5/27/09
Information Technology Professional Forum, Phone Interview with Organizer Savitha Venkatachalam, 12/29/03
Union Network International, www.union-network.org, 5/22/09
UnionBook, www.unionbook.org, 5/22/09
UNITES Professionals, www.unitespro.org, 5/22/09

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Notes

1. I use the terms “global north” and “global south” to draw attention to socioeconomic inequalities among countries (i.e., United States, Europe, and Japan versus South America,

Africa, South/Southeast Asia, etc.). These terms reflect current geopolitical hierarchies in a less normative manner than previous concepts, like East/West, First/Third World, etc. They do overlook important nuances within the north and south, however, such as the marginalized nations in the north, and the powerful nations in the south.

2. Names of firms, informants, and some organizations have been changed to protect the anonymity of the participants in the study.
3. What follows is an excerpt from a larger project due to limitations of space, but it presents the shell of the argument. For a more comprehensive account of data, please contact the author.
4. Some leaders of GetHuman.com split and opened a partner website, get2human.com, both of which are referenced in this analysis.

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Bio

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