
Sound Bites, Sentiments, and Accents

Digitizing Communicative Labor in the Era of Global Outsourcing

Winifred R. Postes

Firms are relying upon the communicative labors of automated bots and electronically mediated live workers as a means of connecting to their consumers. In the process, they are digitizing sound. One might presume these sounds are reflective of “objective” technologies, design and business concerns, and thus socially neutral. Yet I show how such communications are embedded in sociopolitical groundings and tensions of ethnicity, citizenship, and geography. Because of transnational dynamics that stretch communicative labor across state borders (particularly through business process outsourcing), the sounds of service are nationalized as they are digitized.

This chapter examines what globalization does to the ICT design of service labor. Social agents and bots (as well as live employees on computers) are fashioned to be intelligent, deferent, and, very often, feminine (Suchman 2007). But in addition, they are also designed to mirror the nationality of the consumer and to mask that of the worker. This happens through linguistic accents and vocalized emotions within communication software and organizational labor processes. Sites in the United States, India, and the Philippines are examples of such transnational relations, and the focus of this study. Through ethnographic analysis, I draw upon original research conducted in the Indian outsourcing industry, and web research on technology design firms from around the world.

I illustrate these trends through the case of customer service call centers. Call centers are organizations, or parts of organizations, that handle customer relations, telemarketing, collections, and other telephone-based functions. These work processes—which operate transnationally through phone lines, satellite connections, and the Internet—signify the rise of communicative capitalism, and how sound has become the focal point for measuring productivity in the service economy. As managers attempt to assess the quality of worker-customer conversations, they deploy many kinds of technologies to intervene on the labor process and track the mundane sounds of talk. Their aim is to monitor, manage, and, to varying degrees, replace that sound digitally. In particular, several elements of worker

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vocalization are under contention in this context—the conveyance of affect, the humanness of the voice, and the nationality of the accent.

The analysis proceeds first by unraveling the ways that voice is harnessed and shaped in call centers. Managers use a variety of tools from affective computing and artificial intelligence in an attempt to cue broader cognitive mappings of emotion, identity, and location. These include emotion detection software, bots with identities, and online databases of human vocalizations.

Subsequently, I document the various forays into nationalizing sound by the call center industry. Vocal sounds are signifiers for a host of national stereotypes, through dynamics of service ethnocentrism and accent discrimination—even for bots. Some technical and scientific fields, accordingly, have been moving toward the global, using algorithms to account for accent and emotion cross-nationally.

The customer service industry applies such strategies to nationalize (and re-nationalize) communication. Call centers use a range of strategies to produce the “right” accents: from the training of live workers in “national identity management” to the creation of multilingual avatar workers and the design of a digital mix board that plays desired accents for (muted) human workers. While some of these techniques involve full automation, others integrate the sounds of live workers into avatars, and still others implant digital sound bites into the communications that humans do.

Methods

Outsourcing is rapidly spreading around the globe. For a close-up analysis of how it operates, I focus specifically on contracts from the United States and United Kingdom, to English-speaking countries such as India and the Philippines. My ethnographic research of this industry has been ongoing. From 2002 to 2004, I did fieldwork in northern India, in the cities of New Delhi (National Capital Region), Noida (state of Uttar Pradesh), and Gurgaon (state of Haryana). This triadic region is where the call center industry began, and still has one of the largest concentrations of organizations.

Three call centers were the sites for fieldwork, representing various size, ownership, and global positioning within the industry: a multinational firm, with about 3,000 employees; a joint venture firm with a US company and about 200 employees; and an Indian-owned firm, with 40 employees. Methods involved interviews and observations. The majority of interviews were with employees, but also with HR managers, quality control personnel, recruiters, trainers, on-site nurses, and others. Outside these firms, I conducted interviews in the community with representatives of industry associations, government offices, 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.

Between 2009 and 2014, I did further research to explore actors in the United States who participate in this story—the vendors, clients, consumers, and so on. This involved analyzing websites of call center companies and technology vendors, and watching the “webinars” or online videos about their products and programs (see the companies listed in the Works Cited). I examined consumer organizations and conducted interviews with consumer advocates and experts in the call center industry.

By 2015–16, the industry had begun to change in a number of ways, first geographically. The Philippines became a prominent actor in global outsourcing, in fact surpassing India as a destination for call center work. In addition, artificial intelligence started taking a more prominent role in automating outsourced customer service. So I examined a number of firms for their operations, flyers, products, and especially their technology design for customer service.

Digitizing the Sounds of Service

Voice has become important in the context of what scholars call “communicative capitalism” (Dean 2009). Rising economic sectors are now in the *infrastructure* of communications (cell phones, Internet providers, etc.), as well as the *content* of those communications (analysis of public texts, tweets, posts, etc.). Call centers have a primary role in a third feature of communicative capitalism—the industries that *facilitate the exchanges* of firms with other firms and more importantly with their customers (Brophy 2010).

Within these one-on-one conversations over the phone, voice is a key tool of interactive service labor. It conveys three components: emotion, identity, and location. To shape these dynamics, designers, vendors, and call center firms are developing technologies to capture digitally the sounds of service. They turn to fields such as affective computing and human-computer interaction as guides. With the examples below, we see how call center actors are not simply automating the worker as a whole, but rather computationally harnessing aspects of the human worker—like his or her voice—for a variety of purposes.

Affect

Voice is important, first of all in conveying to customers the emotional quality of service. Many features of the human sound—pitch, tone, pacing, phrasing, word choice, etc.—underpin the subtle meanings of the conversation, and relate to customers a crucial aspect of the service economy: care. Exchanged as part of the service is the feeling of being cared for by the organization. A call center employee’s voice communicates that message.

As a foundation, the sociological literature gave us the concept of “emotion work,” revealing how employers often ask workers to invoke, perform, and deliver particular emotions as part of the job. In her seminal study of the airline industry, Hochschild (1983) showed how flight attendants use smiles, polite gestures, and soothing words of comfort to enhance the status of the customer. The bill collectors, alternatively, perform the opposite type of emotion work within the same larger company. Through their conversations on the phone in airline call centers, they use their tone and language to insult and coerce the customer, ultimately to deflate his or her status. One is the emotional “heel” and the other the emotional “toe” of the service industry.

My research on Indian outsourcing reveals how call centers do much more with voice in the pursuit of affect. They create, display, perform—and manipulate—emotion in the service of credit and debt (Poster 2013b). They utilize emotions to get consumers to enter into, stay on, and pay back debt. While on the phone, employees do emotional investigative work to figure out consumers’ personal sensi-

tivities, and exploit their emotional motivations for paying. They tap into consumer ethics concerning debt, and lean upon their sense of honor, status, and respectability. In short, they use intricate emotional strategies to target consumer intimacies and moralities.

Many computerized programs have been designed to track, monitor, and analyze the emotion in call center speech. Straddling the fields of affective computing, communications studies, and psychology, researchers are well at work investigating the affective state of the customer. Some are curious what makes a customer angry (Schmitt et al. 2010). They use “acoustic, linguistic, and interaction parameter-based information for anger detection” (Neustein 2010, xiv). Others are curious what makes a customer happy (Gavalda and Schlueter 2010). They use data mining techniques of recorded and live calls to “search for words, phrases, jargon, slang, and other terminology” for evidence of customer satisfaction with their service interaction.

This “emotion detection” software is used in the workplace itself as well, by call center managers who seek to evaluate their employees (Poster 2011). It enables managers to technologically surveil the most “human” part of the service relation—the emotional engagement between customer and worker. They use the wave frequencies of a person’s voice to detect a wide range of human emotions—irritation, duplicity, delight, or sexual arousal. Words themselves (such as “frustrated” and “angry”) are evaluated for emotional content. The software also assesses features of the conversation (such as pitch, tone, cadence, and speed) 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, for instance, to sign up for a health insurance plan.

These systems help firms evaluate the effectiveness of the worker’s voice in communicating the appropriate emotions of service. Accordingly, alarms can be sent to supervisors on the shop floor the moment that inappropriate emotions are expressed by an employee. Thus, it’s notable how affective computing scholars use call centers as a test case for learning how to analyze emotions through algorithms (Neustein 2010). The service economy is a convenient site for combining the interests of communicative capital and HCI research.

Identity

Voice is important for a second reason within call centers: in communicating identity. This refers in a direct sense to the identity of the worker herself or himself. But by extension, it also refers to what the presentation of the worker’s identity means for the organization he or she works for. Labor scholars have considered for some time how worker identity has value for firms: to elicit loyalty to the job, to achieve consent for various kinds of organizational controls, or to project the firm’s corporate image (Poster 2013a). Toward this end, employers commit many kinds of formal and informal resources into shaping workers’ identities.

This includes bots as well. AI designers are creating identities for website social agents, the V-reps, since many firms consider it a critical part of their public display of service. At one point, firms were hiring specialized professionals in Silicon Valley to create worker bot personalities, which have several components. One is a name and physique. United airlines had Julie; Unilever had Katie; Sprint PCS had Claire; Pepsi used Lisa. Sometimes the V-reps have a catchphrase, such as “Okay,

let's get started" and "Got it!" They may have interests, hobbies, and jobs. Cal North was constructed for a California transit system to be a "retired cop who likes football and kids and hates decaf coffee" (Perry 2003). Yahoo's Jenni, who dictates your email over the phone, has an entire background including a resume (Wong 2005). In a 700+ word biography, Jenni is described with fake job references, university degrees, and boyfriends. This biography details her physical features as well: 5 feet 5 inches, 108 pounds, blue eyes, brown hair.

It is often the voice, however, that transmits this identity to the consumer, especially for live employees on the phone. Voice indicates status features of the speaker—his or her gender, age, background, and so on. Accordingly, the status of the worker becomes a reflection of the broader company, and for this reason managers reshape worker features to conform to idealized identities. For instance, I heard often from managers in my research that the voices of female workers are more suited for customer care, such as on helpdesks, in terms of soothing angry callers who are phoning in their problems. Male workers, alternatively, are said to be more suited for telemarketing, given that their voices convey the authority and aggression needed for sales.

Voice also indicates class. Call centers sometimes prefer higher-class sounds from their workers, in order to upgrade the status of the firm. This becomes problematic for some employers in the United Kingdom, who are distasteful of particular accents that are associated with low-class status. In turn, they have developed accent training programs for these workers to sound more middle class in their service interactions (Warhurst 2016).

Recent trends in the technologies of service are revealing how critical voice is for conveying "identity." VocalID is an online organization that collects and preserves human sound bites in virtual storage. Donors log onto the VocalID website and speak 3,000 scripted words or phrases that a person might say in a typical conversation. The organization then records and keeps them in a voice databank. Its goal is explicitly "Connecting voices to identities: Synthetic voices, as unique as fingerprints" (VocalID 2015). The banner on VocalID's homepage reads, "Say goodbye to uniform voices. Voices are not identical. They are our identities."

Originally, this system was designed for the "tens of millions worldwide" who cannot speak and therefore rely on synthetic voices to communicate (think of renowned physicist Stephen Hawking). For them, VocalID serves as an alternative to the limited options of most automated voice synthesizers, in which every user sounds the same regardless of age, gender, and so forth. Many feel that "Perfect Paul," the most efficient and common of these synthesizers, does not align with their image of themselves, such as 17-year-old female Samantha interviewed by National Public Radio (Spiegel 2013). Instead, donor sounds are electronically blended with a recipient's original base pitch, breathiness, and other characteristics (Spiegel 2013).

However, VocalID has an additional—and much broader—applicability in the digitized service economy. It will be used to imbue automated service workers with human-like sound. VocalID systems will be integrated in the software of cell phones and computers, so that the users of this technology will be expanded to the "hundreds of millions" who have text-to-speech technologies on their mobile devices. In the future, everyday consumers will likely have a range of options among real and modified human voices from the database of their own choosing—even their own—that speak to them. Virtual assistants, in other words, can be programmed

to appear audibly more human, with more personalized voices and thus identities. This means that the “social agents” who serve the public in Suchman’s (2007) scenario will be one step further from the generic and impersonal bots of the early days of HCI and AI.

VocalID, in this way, reveals the premium placed on the sound of a human voice. Furthermore, it reveals the technological strategies developed to preserve and integrate it into everyday platforms for communication. This will become relevant again when we discuss the sounds of nationality below.

Geography

Finally, voice indicates place. Call center employees communicate aspects of location, space, and time—not directly through words and statements, but subtly through their accents. These accents can signify the worker’s personal place of origin, as well as the location of the firm she or he works for, and its site of operations.

For call centers, there are many wrong kinds of accents (and accordingly wrong places) with which firms do not like to be associated. Call center firms in the United States are known to choose their locations in part based on the desirability of the accent of the workers (Bain 2001). Some setup operations in states such as Nebraska and Arizona on the premise that the accents of employees are most “neutral.” This contrasts to states such as New York, Texas, Alabama, and Minnesota, which have accents with undesirable sociocultural signifiers—too tough, too urban, too cosmopolitan, and even too “dumb.” Relocating based on these criteria then saves the firm investments in “accent training.” As human resources are the main expenditure for these firms, such training can represent a large share of their labor costs.

Voice also conveys the foreignness (and/or foreign location) of a worker. In some cases, that foreignness is desired by the firm and enhances their service (Hill and Tombs 2011). Take the example of a French restaurant in the United States. A waiter’s French accent supposedly improves the experience for the customer by legitimizing the coveted foreignness of the product. Other times, however, that foreignness is not desired by the firm. This point leads us to the next section: how and why firms are investing resources into transforming the sounds of service.

Outsourcing and the Global Problems of Voice

Employee voices carry meanings of nation, along with the factors above. For the call center industry, this becomes apparent in the context of outsourcing. *Outsourcing* is the contracting out of particular functions to a secondary firm that is specialized in those services and provides them more inexpensively (Poster and Yolmo 2016). The offshoring of services began to proliferate around 2000, when Internet connections, fiber optic cables, and satellite communications systems began to enable data and voice transfer easily and cheaply across distances.

Yet sending service contracts abroad means that workers and consumers are interacting directly across Global North and South. For firms from the United States and United Kingdom in particular, the most common destinations have been India and the Philippines. One of the primary reasons for moving to former

colonies, in fact, is language—to make use of English-speaking capabilities of the workforce.

What may seem like a cost-saving endeavor in language parity, however, can backfire. Call center firms become troubled by local accents, which reflect different varieties of English from those used in the United States and United Kingdom—a nuanced phenomenon that the sociolinguistic field of World Englishes has illuminated (Sridhar 2008). Even within India, there are many Englishes. As Cowie (2014) describes, the more distinctive version may be marked by some of the following: a trilled “r” sound, a retroflex consonant (e.g., the pronounced “t” at the end of a word), and a British-style, long “a” sound (e.g., in words such as “class” and “chance”).

In this context of outsourced call centers, then, a worker’s voice (indirectly) relays her or his location in a global distribution of labor. It conveys not only the immediate “place,” but a large grab bag of transnational codes and flashpoints: citizenship, nationality, meanings of service, politics of outsourcing, and others.

Nationalized Sound Bites

Voice over the phone itself carries nationalized meanings that customers, workers, and employees regularly evaluate. For consumers in the United States and United Kingdom who are on the phone with Indian and Filipino workers, nation is present in both positive and negative ways—as a trivial concern, a benign curiosity, or a point of virulent contention. In a parallel trend, the fields of affective computing, AI, and HCI have been moving toward the global. A preoccupation of these scholars has been dissecting particular patterns of talk along national lines using computerized techniques. As designers create automated workers for the service economy, these tendencies are spreading to bots and V-reps in the service economy as well.

Accent Discrimination

Sound is nationalized, to begin with, through accent. Psychologists show us that people make predictions and assumptions about the nationality of others during interactions. Moreover, they often do so based on just the sight and sound of a person—what psychologists call their “nonverbal accents” (Marsh et al. 2007). Nonverbal accents include a range of supra-linguistic tools that humans use to communicate—some of which are visual on the body (e.g., shrugging one’s shoulders, raising an open hand, etc.), but others of which are vocal. This includes obvious audible cues such as words and pronunciation, but may include subtle markers as well: a tendency to laugh, certain vocal intonations, and so forth (Elfenbein 2007).

In fact, scholars predict that it is easier for people to identify national identity based on voice (e.g., a vocal recording) than vision (e.g., a photograph). In experimental studies, informants use such nonverbal accents to identify Americans versus Australians. Moreover, they attribute qualities to each based on these factors: Americans as more leader-like and dominant, Australians as more likable and friendly. Given that participants in these studies were given minimal information

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on which to interpret the cues, Marsh and colleagues (2007) conclude that participants were using stereotypes to attribute particular nationalities to accents.

In the employment context, such stereotypes are applied to accent on a regular basis. Many studies have shown that *employers* make decisions about a worker's career and earning potential based on his or her accent (at least in the United States). In the interview process, for instance, Asian, Latino, and African American applicants with minimal accents are rated as more employable than those with maximal accents (Carlson and McHenry 2006). Speakers of nonstandard English are seen as lazy, incompetent, unprofessional, uncreative, and so forth (Atkins 2000). Within that group, moreover, the nonstandard speech of blacks is rated more negatively than that of whites (e.g., who speak Appalachian English). Transnationally, employers privilege French and American accents over Japanese accents (Hosoda and Stone-Romero 2010).

Accent matters even more than foreign names. Job candidates with foreign sounding names and no accent were viewed favorably by recruiters, while those who had an accent along with the foreign name were viewed unfavorably (Segrest Purkiss et al. 2006). Critically, accents matter when wages are assessed. Earnings penalties are higher among workers of foreign ancestry who have lower proficiency in English (Hamilton et al. 2008).

In the service industry, *consumers* are found to react to accents this way as well. Of US consumers, 32% report negative responses to Asian-sounding call center workers just based on their accent (Sridhar 2008). Customers in Australia report negative responses to hearing Indian or Filipino accents. They report reduced tolerance, and beliefs that the worker can neither understand nor assist them (Hill and Tombs 2011). Another study found that people are more likely to stereotype and thus negatively rate the call center performance of workers with Indian versus British or American accents (Wang et al. 2009).

Human-computer interaction scholars are showing that the same is true for bots. As some experiments show, American consumers prefer listening to bots and other social agents who have their same accent, and even find them to be more knowledgeable than similar voices with foreign accents (Dahlback et al. 2007; Nass and Brave 2005). This was found comparing white American participants to Koreans, in one study, and Americans to Swedes in another. Informants preferred hearing online consumer information (descriptions of products) from online agents with their own accent.

Sound is nationalized in a second way, through affect. Until recently, much of the research on emotion assumed a geographically shared set of meanings. Yet parallel to the rise of the global economy and network society, scholars have turned their attention to the way affect is broken down by nation. Their focus is on the way emotions are localized rather than universal. This prompts a connection of psychology and linguistics to affective computing.

Research in affective computing has begun dissecting emotions for particular national settings—and what they mean within the consumer mind-set. With the tools mentioned earlier, scholars have used “machine learning” to classify affective sounds in five countries (Laukka et al. 2014): Australia, India, Kenya, Singapore, and the United States. They find with their algorithmic emotion analysis that certain affective sounds are more likely to be nation-specific than others: “anger, contempt, fear, interest, neutral, pride, and sadness” versus “happiness, lust, relief, or shame” (447).

Service workers, in particular, are being evaluated for the geographic contours of their emotional expression—largely through the sound of their voices on the phone. For instance, French workers are found to be less emotionally controlled versus those in the United States, who hide real feelings of negativity while putting on a (proverbial) smile (Grandey et al. 2005). In the Philippines, call center workers are found to be reluctant to handle confrontation. This leads to “the CSR [customer service representative] retreating into silence or resorting to formulaic responses to arrest the anger” (Hood and Forey 2008; Lockwood et al. 2008, 237). According to the studies, these workers are accustomed to implied expressions of discomfort rather than those that are direct. They also reportedly lack sociocultural training in problem solving. In turn, these linguistic barriers to the use of (American) English are interpreted by customers as emotional failings (e.g., in using words such as “would”).

Given these varying emotional expressions, specific national pairings of worker and customer become problematic for communication. In one study, Filipino agents were “too polite” for American customers. Americans are reported to shout aggressive things during the call: “don’t apologize, just fix it” (Friginal 2009, 59). Filipino agents would respond with apologies and deference, yet this was not received by American customers as friendly. Rather, they interpreted such talk as “ineptitude or condescension,” which ultimately “exacerbated the communication breakdown, resulting in an unsuccessful transaction” (59). Alternatively, Chinese customers are found to be emotionally and expressively reserved (Xu et al. 2010). In turn, researchers suggest structuring the labor force as an affective complement to that, such as hiring emotionally assertive employees who are capable of applying “more interactional steps . . . to work out this customer’s real intention” (466).

Within affective computing, scholars are also applying such frameworks in the design of emotional service worker bots. Take, for instance, a study from Northwestern and Harvard Business Schools on attitudes toward “botsourcing” and “outsourcing” (Waytz and Norton 2014). Findings indicate that people in the United States prefer to use robots for thinking versus feeling jobs. However, they are more comfortable giving robots feeling jobs if they are more “humanlike.” Respondents also prefer to outsource “emotional” jobs to particular countries like Spain and Australia, instead of Germany and China, which they perceive to be generally more “robotic” as nations. Here, the narrative of the cyborg is extended to nationally defined workforces.

Thus, literature is showing us how consumers read emotions within conversations in the same way that they do accents—that is, through a nationalized prism. There is evidence that the two are interactive, moreover. In a study by Wang et al. (2013), accent bias tended to increase with a state of anger. Consumers who are upset while receiving calls from telemarketers and debt collectors, the main activities of call centers, are less likely to suppress their biases about accents. In these ways, then, accents are interwoven with emotions in the context of global services.

Service Ethnocentrism

All of this points to a common core dynamic: the sounds of workers in global call centers (as accents and affective displays) are codes or flashpoints for underlying tensions within the political economy of service. Thelen and colleagues conceptu-

alize this phenomenon as “service ethnocentrism” (Thelen, Yoo, and Magnini 2010; Thelen, Honeycutt, and Murphy 2010). They have been studying American consumers regionally and nationally, and find that over 70% of their informants oppose outsourcing. Their work describes how, and explores why, many US customers prefer to talk on the phone with service workers of their own nationality.

Their research has pinpointed several reasons. Some are practical, such as concern for security (e.g., privacy protection and safeguarding of information) and ease of communication (e.g., understanding accents). Some have to do with protecting the national economy (e.g., expressing loyalty to American firms and jobs). Other reasons, however, are more subjective and reflect nationalist hostilities: such as “foreign enmity beliefs” that offshore workers are not familiar enough with American culture to provide effective services, and “nativist beliefs” that local workers are generally superior (smarter, more helpful, etc.).

When charted against types of service, these feelings are associated more closely with financial-related activities (such as taxes) and less so with problem-solving activities (such as computer help desks). In other words, service encounters that involve money heighten the ethnic/national unease among US consumers. And significantly, service ethnocentrism varies by geographic destination of the work. Customers differentiate the desirability of outsourced employees by country; for instance, they prefer Canada ahead of China, India, the Philippines, and Mexico. Global North countries are ranked over those of the Global South.

This suggests that accent and affect in call centers may reflect many levels of global politics for the consumers. They may be reacting to a deeper set of meanings and conflicts, rather than simply being put off by the sound itself (i.e., the immediate encounter with the worker’s voice). In fact, their tensions may have less to do with an Indian worker per se than with actors and organizations in their own setting: the US firm that the Indian employee works for, the US government that has failed to regulate the labor practices of outsourcing firms, and so forth.

Especially troubling is the offensive language that some consumers use on the phone, in the form of hostile and explicitly nationalized abuse. It may include refusals to buy things from foreigners, demands to be transferred to an American, and the shouting of racist slurs. Such cases have been documented in call center research in India (Das and Brandes 2008; Mirchandani 2008; Noronha and D’Cruz 2007), the Philippines (Friginal 2009), and other countries. While these extreme cases tend to be infrequent relative to total call volumes (Poster 2007), they do represent an important segment of consumer reaction to globalized customer service.

In the digital era, and with expanding technologies of call center communication, customer service ethnocentrism has found new kinds of outlets. There is mounting evidence of hate talk circulated through online media, confirming that electronic communication can be fertile ground for racist, sexist, and xenophobic sentiment (Citron 2014). Within call centers in particular, employees are now experiencing this verbal abuse, not only directly from consumers’ voices on the phone, but through many other media and algorithmic sources as well.

My research has examined how consumers are expressing nationalized emotions in a range of places (Poster 2011). They create websites to post complaints about overseas call centers and their workers, they input negative sentiments on customer satisfaction ratings and software, and they generate databases to log companies that have too many foreign workers. Given the growing role of technological platforms as sites through which this anger appears, D’Cruz and Noronha

refer to such emotional outbursts and nationalized talk as “customer cyberbullying” (D’Cruz and Noronha 2014; D’Cruz 2014).

In fact, they argue that the anonymity of call center technology facilitates such virulent xenophobia. In line with my earlier discussion, they find in their interviews with call center workers that audio phone communications can decrease social presence and insert anonymity to service interactions. Customers, accordingly, may experience this anonymity as freedom to express their service ethnocentrism:

In participants’ view, the invisibility and partial anonymity of the interaction, aided by its one-time and perceived one-on-one occurrence, lowered customer inhibitions. . . . That customers neither could see participants (and their reactions) nor knew them . . . brought in an element of personal and social dissociation that diluted customers’ regard for politeness and restraint about incivility. . . . [The] limited cue capacity . . . triggers misbehaviour. That is, . . . restrictions on the scope of observation due to the mode of communication lead customers to greater degrees of detachment and lower levels of propriety which, along with their sense of customer sovereignty, give rise to bullying behavior. (D’Cruz and Noronha 2014, 187, 190)

Anonymity of the service interaction, therefore, does not necessarily benefit the worker. However, as we’ll see next, it may benefit the call center and its corporate clients. Service ethnocentrism then provides a context for understanding the backlash against employee voices and the “wrong” kinds of sounds.

Reconstructing “Appropriate” Accents, Digitally and Organizationally

With these transnational dynamics of accent and affect, the value of sound for communicative capitalism comes under threat. Features of the worker’s voice (its transmission of care, humanness, etc.) that are helpful for firms above are now undercut by the troubles of global politics and nationalism within consumer economy.

Accordingly, many firms do not seek to address this issue head-on (by opening a dialog with consumers, for instance), but rather indirectly and deceptively (by hiding). They mask their identities within the customer exchange, often to obscure the process of outsourcing (Poster 2007). Significant for this analysis, they do it through sound. The voice of the worker has the potential to “give away” the location of the firm (as well as its identity) and to invite backlash, as we saw above. Thus, altering the voice can protect the firm in terms of maintaining its anonymity. Consumers will assume a synchronicity of nation, and the firm’s outsourcing practices will remain hidden.

Notable is how many of the current managerial trends for handling the dilemmas of nation involve using AI and affective computing. Call center managers and technology entrepreneurs have responded with attempts to renationalize voices. Their solution for smoothing globalized tension is to create—through careful labor processes and employment digitization—the “right” kinds of voices, accents, and affects. Their strategies range in the extent and use of automation. Some are highly integrative of technology, to the point of full automation; others are only partially

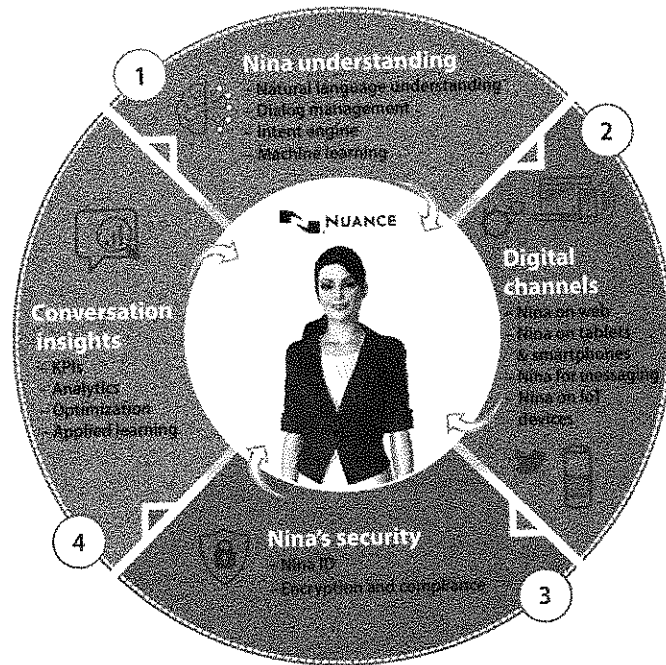


FIGURE 1: Nina, the multilingual V-rep. Source: Nuance Communications (2018).

so; and some not at all. In each, however, firms are manipulating and/or replacing human sound with preferred accents. Thus, firms are digitally capturing not only *voice* (as shown above), but *nationalized* voices.

The Multilingual Bot

The *fully automated* solution is to create bots that perform many accents and speak multiple languages. V-reps, appearing as online avatars on company websites, have become global. Just a few years ago when I researched the V-reps, they were plainly American (or subtextually “neutral” in nationality). But now, the bots are explicitly transnationalized. Nina from Nuance (figure 1), used by Coca Cola, represents a new age for the V-reps. As an early promotion on the website announced, she “speaks 38 languages” and “lives in the cloud.” These V-reps are meant to be untethered to geography. Visually, they may display the national identity of the home country of the firm (i.e., the Global North hegemonic ideal of whiteness), yet vocally they are flexible for communicating across countries (and for doing so convincingly).

The value of the worldly bot is in its linguistic range. This automated employee is set up for breadth: she is a storage facility of global speech. Some of these bots also perform affective labor algorithmically. Amelia from Isoft speaks 20 languages and “understands language and emotion” (Isoft 2015).

Thus, the AI of service work is moving into the transnational economy. The design of V-reps takes into account nation and language. The social agents that

Suchman describes are now capable of interacting globally, or acting as global-functioning citizens, who acknowledge and communicate with multiple nationalities of consumers.

National Identity Management

The *fully human* option, on the other hand, is to alter live workers' behaviors within the labor process to match desired vocalizations. This option became prevalent among Indian call centers when the industry first took off in the early 2000s. The idea was to train (and retrain) employees in a variety of communicative and behavioral skills, so that they can hide their locations and instead convey to American (and British) consumers that they are in fact *in the United States*. I refer to this process as "national identity management" or NIM (Poster 2007).

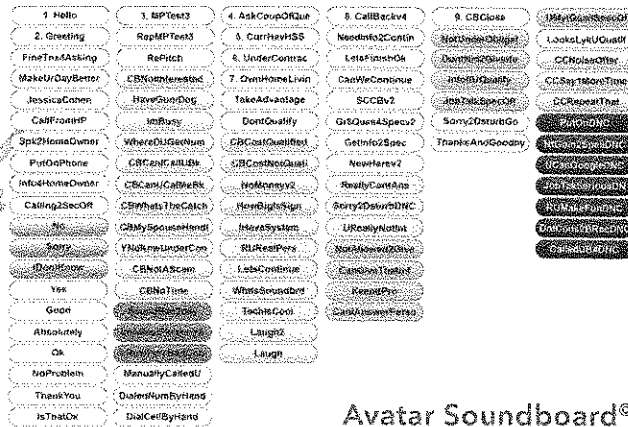
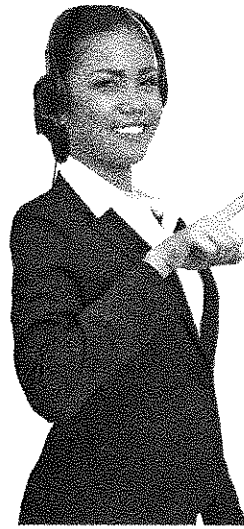
Compared to the bots, the Indian employee has a different value—she or he produces one nationalized sound (the American accent) with incredible depth and detail. The call center worker can embellish her or his sound with other vocal capacities, such as geographically appropriate dialog, conversation imbued with localized meanings, and so forth.

NIM involves several components. Through induction sessions and ongoing human resource department activities, call centers train workers in a variety of communicative skills and resources: (1) *voice and accent* to reproduce American diction, voice modulation, rhythm (number of beats per second), and grammar; (2) an *alias* to announce American identity to the customers through their name; and (3) *conversational skills* to convey through small talk that they are in the United States. This includes extensive knowledge of American consumer items, retail outlets, restaurants, and so on. It also includes lingo, current events, sports, weather, and time zones for the locations they are calling. And finally, (4) the worker learns a *script* to repeat when customers test the boundaries of that façade and pose the looming question: "Where are you calling from?" The predefined responses range from the opaque: "an outbound call center," to the semispecific (and somewhat truthful) "in Asia," to the less honest "a US office of the client firm." And "if they ask again, then we change the subject." As the HR trainer summarized, "It's a marketing strategy—if you cannot convince, confuse."

These four practices lie on a continuum of layers of locational masking, ranging from the lesser forms that are indirect and more suggestive, to the more extreme forms that involve direct, outright lying. They may be applied individually or in combination in routine conversation. Workers vary in how much they actually practice it. Employers vary in how extensively they are committed to the endeavor, and to what lengths they go in promoting it. In some call centers, workers can be fired for failing to carry out elements of this process effectively.

NIM has broad reach across the Global South, as my colleague Kiran Mirchandani and I are observing. While much of the original research on locational masking focused on India, our book *Borders in Service* (Mirchandani and Poster 2016) collects cases from Morocco, Mauritius, the Philippines, and others, in which workers are often asked to participate in linguistic and conversational obfuscations of their nationality.

At the same time, it is important to note that some of these NIM strategies (especially the most devious ones) are on the decline (Mirchandani 2012; Nadeem 2011). The outright lying (step 4 above) has become less common in the second decade of



Avatar Soundboard®

FIGURE 2: The accent soundboard. Source: Avatar and Echo Live Agents (2018).

the outsourcing industry in India. As consumers have protested the use of these strategies by Indian call centers, a few US firms have even revoked their contracts and pulled their work processes back to the United States.

Indeed, wary of retraining workers as a strategy for anonymizing, firms have turned to other options. We see next how the managerial practices of deception with voice are now appearing elsewhere—digitally.

The Accent Mix Board

A third solution for fixing accents in global centers (and a midpoint between the two poles of human versus robotic workers above) is *partial automation*. It involves integrating live labor with algorithmic labor, through call center “soundboards” (figure 2). The idea is to manufacture appropriately nationalized sounds through digital means. Then, the worker invokes those recordings to “talk” with customers instead of using his or her own voice.

The soundboard is a database of prerecorded phrases, questions, and answers appearing on a computer screen. After the worker makes the call and listens to what the customer says, he or she then presses a button to play the corresponding response. This may be an opening greeting to pitch a product, a follow-up to a question, or a statement transferring the call to a supervisor. If customers don’t understand the first time a sound bite is played, the board will have several additional responses in slightly different wordings or intonation. The board also displays options for nonworded sounds, such as laughs and affirmative interjections: “exactly,” “uh-huh,” and “great” (figure 3). The purpose is to fill out the emotional contours of the conversation so that it feels like a “natural interaction,” as one firm describes it (Madrigal 2013).

The point is that, instead of using their own verbal communications, workers use these prerecorded voices—with desired accents—as a stand-in. The industry hook for this service is “outsourcing without the accent.” Avatar and Echo Live

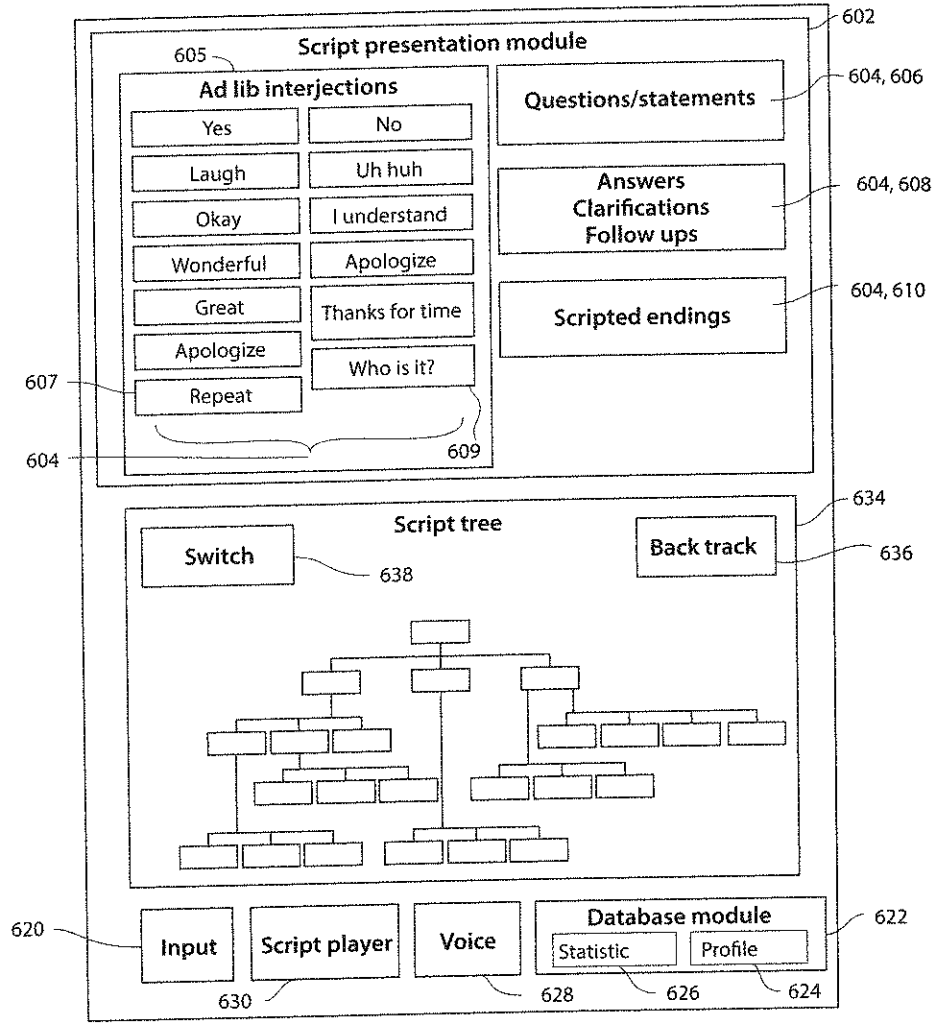


FIGURE 3: Patent for computerized sequence of scripts of compressed audio files. Source: Sirstins et al. (2013).

Agents, for instance, runs out of the Philippines and provides services for the United States, the United Kingdom, Ireland, and Australia. Their website offers sample buttons so that potential clients can hear the same phrase avatared in all four of these accents.

Corporate justifications lay bare the neoliberal motivations for this labor arbitrage. "International accents," they claim, translate into reduced profits. Avatar technology in turn solves this problem by removing those accents from the service encounter. Without any veiled language whatsoever, the firm achieves this goal by tapping into "cheap off shore labor" (as posted on their website in 2015): "Our patented Avatar™ Program is specifically designed to mask our foreign agents accents so that they can prospect for sales leads without any productivity loss. It is no secret that prospects do not like to hear a sales pitch delivered by a foreigner. When lead generation is performed with an international accent, there is an 80% conver-

sion loss that negates the benefit of using cheap off shore labor. Avatar™ software allows our agents to convert prospects into potential sales while giving our clients the benefit of inexpensive labor.” From the point of view of the call center, the vocal capacity of the Filipino worker is burdened by its grounding in national contexts and its display of accented sounds. His or her voice inhibits the social congruence of talk with the customer that is desired by the firms, and is therefore problematic to the transnational interests of communicative capital.

Enter the soundboard. Digitizing sound ameliorates the transnational nuisances of verbal labor by partially automating the worker. As such, it represents a hybrid of human-machine communicative labor. Some companies call their workers “cyborg telemarketers” or “avatar agents.” One journalist labels it “ventriloquist telemarketing” (Madrigal 2013). The soundboard technologizes customer service labor to such an extent that workers can just listen and click buttons—without talking at all. Furthermore, it is also streamlined to the point that workers can respond to multiple customers at one time. With this software, workers can punch buttons, engage in conversations, and become different avatar workers for two to three calls simultaneously.

In fact, this changes (and/or adds to) the type of identity labor that workers have to do on the call. *National* identity management transforms into *cyborg* identity management. Much the same as the call center workers above, these soundboard workers *hide their identities* through a variety of conversational tactics. In this case, they disguise the fact that they are using technologies to semiautomate their conversations.

Yet, similar to the case of national identity management, soundboard workers have a script for when the customer asks “Am I talking to a robot?” Some firms (such as PerfectPitch) “proactively tell them that we are using prerecorded audio.” Others (such as KomBea) however, have a more nuanced and complicated strategy. Workers state to customers (either live or recorded), “You are talking to a live person, but to ensure the information is accurate, I’m using prerecorded audio messages.” Ironically, they announce their humanity through a computerized voice.

An adapted form of the mix board attempts to overcome the leaked identity of the avatars. They create their own sound bites—in-house. Instead of using the stock of prerecorded sounds (prepared elsewhere), the call center produces its own mini-audio clips on site (in its own offshore facility), by one of its own (better speaking) employees. In this case, he or she still may have an accent, but one that is “in between”—not too unbelievable as a robot fabrication, but not too off-putting as a foreigner. Most importantly, it is an accent that is navigable, so that the employee can switch back and forth, from the soundboard to interjections of his or her own voice.

With this system, managers are quite forthright with their intention to fool the customer. The CEO of KomBea (based in Utah) says, “I can promise you that 99 percent of the people do not know that the agent just shifted from pre-recorded to a live voice and back to pre-recorded audio” (Madrigal 2013, 4).

What we are seeing is a digitization of identity management. Even while some accounts of Indian call centers suggest a decline in the more egregious forms of national identity management (e.g., outright lying, as described above), these cases reveal how identity management is being adapted and shifted. It is now transferred into the digital realm through the soundboard equipment and the practices of cyborg service workers.

Heard and Not Seen: The Value of Digital Voice in the Global Economy

The questions remain, in an era of such varied and diffuse ICTs (including video, etc.), why has the call center industry been so focused on digital voice by itself? And why are workers in India, the Philippines, and other areas of the Global South being heard and not seen?

I argue that, quite in contrast to corporate narratives, the global service industry is not interested in technologies exclusively for “better communication” (in the sense of shared understandings, identities, participants, etc.). Rather, firms are seeking and adopting technology that will *filter* the social presence of outsourcing firms and their workers for specific purposes. Digital voice does this in three ways.

First, digital voice reveals enough to the consumer to expose the humanness of the worker, but not too much to reveal the electronic mediations of that service interaction. For call center executives, *digital voice helps to ameliorate opposition to labor automation in services—especially backlash from consumers about not being able to talk to a real person*. Some customers don’t mind interfacing with machines, of course. Young people may be more accustomed than older people to using technology for retail and sales purposes. However, many consumers do mind talking to bots and are raising public objections in the forms of consumer campaigns, online social movements, and legal actions (Poster 2011).

For these consumers who oppose automated services, then, hearing a voice enables a verification of humanness for the worker. One of the markers for this is affect. As call center labor becomes more routinized and standardized (e.g., reading a script, typing in details, etc.), firms are emphasizing how human employees contribute to service by expressing emotion. The empathetic words and intonations of the live worker are a means to do this.

Alternatively, synthetic voices in the transnational outsourcing industry provide a façade of humanness. For tech entrepreneurs and call center firms, these automated reproductions of live workers help to enhance customer service. They may not be as well received by consumers as human workers, but they have value as “human-like” workers (Suchman 2007). This has been the argument of HCI scholar Cliff Nass and his colleagues. They argue that humans treat machines like they are people (Nass and Brave 2005). Furthermore, our brains don’t distinguish between speech that is human versus machine: “Because humans will respond socially to voice interfaces, designers can tap into the automatic and powerful responses elicited by all voices, whether of human or machine origin, to increase liking, trust, efficiency, learning and even buying” (Nass and Brave 2005, 4). Call center administrators subscribe to this notion under the premise that, even if consumers are aware they are talking to bots, they prefer bots with human-like features relative to those that sound like machines. Whether or not we agree, this paradigm helps to illuminate why firms continue to research and produce “conversational” agents and “likable” talking bots so prodigiously (Markoff 2016).

Digital voice acts as a filter in a second way: by removing or hiding the undesirable elements of human sound in global call centers. In particular, it erases what the consuming public in the Global North may perceive as the wrong nationalities, accents, and affects. Such sentiments about accent are brought out and become evident as firms turn to Global South workforces as service providers for Global North customers. Accordingly, by manipulating sound technologically and organizationally, outsourcing companies can more easily create *nationalized symmetries*—

fictional or otherwise—between consumers, workers, and firms across borders. More so than the images that would be transferred via video communications, then, voice by itself—through accent, tone, and substance of talk—can easily be altered and renationalized. Instead of realizing they are talking to a Filipino or an Indian, customers in the United States and United Kingdom can believe they are talking to another American or Brit. In these capacities, *digital voice provides a quick fix for the interactional dilemmas of “nation” for global customer service firms.*

This adds another layer to our understanding of bots, avatars, and social agents. Critical race scholars have shown us how online avatars are not racially neutral—but instead imbued with “cybertypes” (Nakamura 2002, 2008). Adapting the idea of the “stereotype,” this concept “describes the distinctive ways that the Internet propagates, disseminates, and commodifies images of race and racism” (Nakamura 2002, 3). Online game avatars, buddy avatars, and digital signature icons are examples of cybertypes in action, and the way race is embedded in “digital technologies as a form of code, as well as a visual representation of a raced body” (Nakamura and Chow-White 2012, 8). I would add that citizenship and nationality are equally significant mediators of how social agents and other digital workers are represented. This is true of multilingual bots such as Nina, many of whom look and sound like white Americans, while they represent global firms or cater to international consumer bases.

Digital voice acts as a filter, in a third way, by obscuring the national location of the firm. It is not uncommon for organizations to hide themselves completely, or various aspects of themselves (Scott 2013). Increasingly, they use ICTs to carry this out. “Cloaked sites,” for instance, involve the presentation of fictitious or misleading Internet homepages to hide political, social, or corporate agendas (Daniels 2009a, 2009b). They are created by many different kinds of groups, ranging from corporations (e.g., the retail giant Walmart) to hate groups (e.g., the KKK). If Daniels reveals how digital deception is racialized, this chapter points us to a parallel process in global contexts—how it is nationalized as well.

With the case of outsourced sound, we see how national identities and locations are technologically concealed for the fluid operations of global capitalism. *By manipulating workers’ voice, firms can mask their geography to customers and proceed undisturbed in their transnational outsourcing.* Examples in this chapter show how voice by itself—through accent, tone, and substance of talk—can easily be used to change the connotations of place and citizenship of the speaking employee. The consuming public, in turn, takes comfort in the idea that their service interaction has “never left home.”

Concealing the Global South workforce is very much embedded in this socio-technical system. Suchman recounts how the “dream of technology innovators in the service economy” erases much of the stuff behind the scenes that enables it to happen. It rests on a narrative of humans as the masters (i.e., employers, managers, designers) and robots as the servants (i.e., the automated workers), which in turn “further obscure[s] the specific sociomaterial infrastructures—including growing numbers of human workers—on which smooth interactions at the interface continue to depend” (2007, 224–25). If, locally within the United States, women and people of color who do that work are often erased as Suchman notes, so are workers in Global South countries such as India and the Philippines (especially to the view of consumers in the Global North).

All this suggests, then, that workers in global call centers are heard and not seen because their voice has utility for deceptability. Voice can be conveniently

altered (by firms and their technologies) to filter cues that are relayed to the consumer. Video, in contrast, would likely reveal too much information—the citizenship of the worker, the location of the firm, the automation or semiautomation of the labor process, and so on. Yet, digital sound enables an intricate dance between communication methods. It can heighten the social presence of human labor while reducing the social presence of nation. In the process, it obscures automation and geography, while enhancing the (perceived) quality of service.

Conclusion

The purpose of this analysis has been to show the ways that affect and nation are technologically inscribed in the work of interactive service. Sound, as a form of embodied labor, matters in the contemporary ICT economy. For call centers, voice has the capacity to impart a number of markers and symbols, including the emotion, identity, and location of the worker and firm.

The global call center industry has been making use of fields of affective computing, human-computer interaction, and artificial intelligence to capture and manipulate those voices in a number of ways. Voice is a medium to convey (however subtly) the requirements for service and to cue its humanness. But in addition, voice is also a tool to help firms avoid transnational tensions. Through audio communications, speech can be manipulated by the worker so that it masks location. And through digital recordings and software, speech can be reproduced digitally so that it matches the desired requirements of the consumer base even better (from the perspective of employers). Technologies of sound enhance the anonymizing practices by firms vis-à-vis consumers.

Digitizing sound in this way has several implications. It signals, first, the rise of communicative labor. With the increasing commodification of communications, and the rise of industries to harness and manage them, the burdens of performing those communications in desired ways are placed on workers. The communicative body (Lan 2001, 2003) of call center employees may be called upon for distinct tasks at various points in the labor process: for the mind in analyzing and inputting data from the consumer, for ears to hear and interpret the consumer's talk, and for the voice to speak. These functions may happen in combinations, but significantly, not necessarily as a connected set. In fact, as examples here show, the communicative body may be valued for its capacity *not to communicate* (that is, when the Filipino worker is told to mute his or her voice).

Second, this case underscores the transnational dynamics of such industries. The search for inexpensive labor may send call centers to the Global South on economic grounds, but the search for common linguistic resources sends firms specifically to former colonies. These combined practices—seeking out Global South workforces, renationalizing their talk, and digitally reshaping their accents and affect to suit those of the Global North—provides no better illustration of “post-colonial computing” (Irani et al. 2010; Philip et al. 2010).¹ Instead of reflecting “neutral” design, these new technologies of the service industry reflect and reify historic geopolitical relations.

Finally, important is what these trends represent in terms of automation. In the service industry, we are *not* seeing a unidirectional leap toward roboticization, as many have prophesized. Rather, we see highly complex and varying patterns of how technology is integrated into these new ICT-based forms of work. This means

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new constellations of the cyborg worker. In some cases, firms put human voices inside of bot workers and cell phone apps. In other cases, live workers use digitally recorded voices as a stand-in for their own (e.g., in the case of the soundboard).

Most of these forms, in fact, represent an intermediate stage of automation. Audio technologies—as opposed to video—help firms toward this endeavor. They filter the social presence of the worker *in just the right amount*: enough to show humanness, but not too much to compromise the (national) anonymity of the outsourced firm. Voice, in short, has utility in its deceptability. I have argued that this partial automation solves the dilemmas of nation in service work for global firms. Alternatively, for workers, it creates new demands. They perform *national* identity management to obscure their geographies and citizenship (through accent, affect, and sound). And now they perform *cyborg* identity management to obscure how digital or human they are (by covering up how much technology they are using to mediate the conversations). Communicative labor for the digital service economy, it appears, is a complex process with contradictory dynamics.

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Note

1. According to Irani et al., "Postcolonial computing . . . is a project of understanding how all design research and practice is culturally located and power laden, even if considered fairly general" (2010, 1312). It is both a "shift in perspective" for understanding transnational forms of technoscience (particularly for transfers of technological knowledge and systems from global north to south), but also a "bag of tools" (Philip et al. 2010) for critiquing assumptions of Western technoscience and providing alternative lenses on computational practices.

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& Technology Studies

EDITED BY

Janet Vertesi & David Ribes

CO-EDITED BY

Carl DiSalvo
Yanni Loukissas

Laura Forlano
Daniela K. Rosner

Steven J. Jackson
Hanna Rose Shell

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