Rethinking Transnational Men

Beyond, Between and Within Nations

Edited by Jeff Hearn, Marina Blagojević and Katherine Harrison

Routledge
Taylor & Francis Group

NEW YORK   LONDON

The right of the editors to be identified as the authors of the editorial material, and of the authors for their individual chapters, has been asserted in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

SUSTAINABLE FORESTRY INITIATIVE   Certified Sourcing
www.sfiprogram.org
SFI-01234
SFI label applies to the text stock

Printed and bound in the United States of America by IBT Global.

7 Subversions of Techno-Masculinity
Indian ICT Professionals in the Global Economy

Winifred R. Poster

In the past few decades, there has been a dramatic shift in the male players of the information and communication technology (ICT) industry. While the pioneers and "geeks" (see Bell, this volume) of Silicon Valley have held reigning positions, technical professionals and entrepreneurs from India are coming to the forefront. I will argue that this is not a momentary occurrence, but represents an important restructuring of masculinities on the world scene.

As the global economy shifts from an industrial to informational society, ICT represents a location where the preexisting or expected patterns of masculine power are unhinged, challenged, and rearranged. ICTs offer men—across a range of class positions and geographies—unique tools for agency. Men in the global South are using these tools to build local economies and, moreover, to contest the hegemony of the global North.[1] In this chapter, I show how male IT professionals from India are gaining momentum relative to those of the United States and, in many capacities, achieving positions of dominance. I ask what tensions arise when competing masculinities are more evenly balanced.

To frame these issues, I introduce the concept of techno-masculinities. It is based on several features distinct to the information society and therefore problematizes our thinking of hegemonic masculinity. Then I discuss the incursions of Indian techno-masculinities in the global economy. This happens through the agency of male actors at several tiers of the information hierarchy: ICT entrepreneurs, engineers, managers, and service workers. Across all of these positions, Indian men are using their ICT resources to assert themselves in transnational engagements with the US. The conclusion examines the implications of emboldened Indian techno-masculinities for gender relations more broadly, in terms of both supporting and engaging in new types of violence against women and other communities.

The analysis draws from research from over a decade in the ICT industry, along with new analyses from a variety of sources. Original fieldwork was conducted in the US and India, first in 1995–1996 with ethnographies of computer manufacturing and engineering firms, and then in 2002–2003 with outsourced customer service call centers in India. Methodologies include: interviews with ICT managers, engineers, factory workers, and

call center agents; observations of work environments; and document analysis. More recent data collection is drawn from newspapers, governmental reports, and international data archives. I start by describing transformations of the information society, the development of techno-masculinities, and a multilevel approach for studying this issue.

TECHNOLOGICAL CHALLENGES TO HEGEMONIC MASCULINITY

The link of technology to masculinity has been observed in fields ranging from gender to organizations to science and technology studies (Burris 1989; Cockburn 1985; Faulkner 2000; Gray 2000; Hacker 1981; Lohan and Faulkner 2004). Even in settings as diverse as Sweden and Malaysia, men define themselves through technology. They form bonds through everyday artifacts like cars and motorbikes and complex tasks like engineering

Table 7.1   Hegemonic versus Techno-Masculinities

	Hegemonic Masculinity	Techno Masculinity
Imagery of Manhood	Transnational Business Masculinity	• Displays of Technical Expertise • Tools of ICTs • Landscape of Virtual and Networked Spaces
Basis of Power	Government, Military, Religion, Finance, etc.	Information and Network Society • Informational Commodities • Technical Knowledge • Virtual Mutability
Geographic Location	Traditionally, the Global North	Increasingly, the Global South
Ethnic-Racial Foundation	White/European	Increasingly Nonwhite—Asian, Latin American, African
Narrative of Globalization	Neoliberalism, Imperialism	Varied, Inclusive of: • Postcolonial Social Justice • Alternative Sciences • Indigenous Knowledge

Composition	Singular and Uniform	Heterogeneous and Layered:
		• Global
		• National
		• Transnational
		   Entrepreneurial
		   Knowledge Worker
		   IT Manager
		   ICT Service Worker

(Mellström 2004). Certain types of masculinity are informed by technology to a greater degree than others, however. Those merging (more or less) into a cohesive identity may be called "techno-masculinity." Techno-masculinity departs from hegemonic masculinity in several ways (Table 7.1).

To start with, techno-masculinity provides an alternate *imagery of manhood*. It relies on displays of technical skill, creativity, and a love of tinkering (Faulkner 2000; Lohan and Faulkner 2004). It uses unique tools for power, involving technology, computers, and information (Wajcman 1991, 2004). It operates within landscapes of communication, networks, and information, such as the Internet. These features reflect a shift away from previous imperatives of masculinity. Hooper (2001) documents the way narratives of war heroism and risk adventurism are being pushed aside to accommodate ideals introduced in the 1990s by neoliberal economists and state leaders: rational calculus, technological prowess, and expertise. This also challenges "transnational business masculinity" as the preeminent or dominant form (Connell 1998; Connell and Messerschmidt 2005). It calls into question the exclusive role of economics in the dynamics of masculinity (Beasley 2008) and suggests that other notions of manhood have power in certain contexts and/or intersect with them.

Techno-masculinity has a unique *basis of power* in society. Hegemonic masculinity has been rooted in the traditional spheres such as states, militaries, religious institutions, business. Yet in the postcolonial age, the foundations of masculinity are shifting toward technology. Chang and Ling (2000, 27) argue that "technology is driving the latest stage of capitalism" through a masculine "global umbrella of aggressive market competition," encapsulated in the term "techno-muscular capitalism." Aneesh (2006, 2009) refers to an emerging "algogracy" in which codes, programming, and information are dominant forms of production, governance of firms, and labor. Many of the new jobs in the economy are based in technology—and associated with men. In the US, occupations with the largest projected growth (2008–2018) include software engineers, network systems and data communications analysts, and call center workers (Lacey and Wright 2009).

The information society, I argue, offers several resources for techno-masculinity. One is information as a commodity. The items being traded and accruing value are data and information (Castells 2000; Peterson 2003). Significantly, this commodity is relatively easy to obtain, produce, and distribute. Information requires neither natural resources nor an elaborate production infrastructure, especially compared to previous forms of colonial extraction. It uncouples the previous, tightly bound linkage of economic power with the global North. In a coup against neoliberalism then, men in the global South can obtain the prized commodity of knowledge for production (Evans 1995).

This leads to new kinds of stratification based in information, that is, a digital divide. Yet it also leads to new kinds of agencies and counteragencies, like intellectual piracy (Shiva and Holla-Bhar 1993; Sundaram 2010).

Indeed, if data and digital media are tools for male capitalists, they are also tools for the regular man. The info-society offers him knowledge power, technical skill, and the ability to reappropriate computer software and hardware belonging to somebody else for his own purposes (Poster 2011). Thus, even though the information society has its gradations, it offers ICT resources to various strata of men.

The Internet and its networks provide techno-masculinity yet another resource—virtual mutability. ICTs operate in a realm of symbolic fluidity, where the body of the communicator is separated from the message of communication. This enables a transformation of identities. Here, previous forms of masculinity can be unhinged and reformed. Alternative gender, ethnic, and national identities can be generated or deployed (Nakamura 2002, 2008; Turkle 1995). Identities can be masked or hidden. In this way, ICTs involve "the creation of virtual bodies, the blurring of the 'real' and the 'representational'" (Hearn 2006, 949). Deception through online spaces is a new tool for men.

Techno-masculinity reorganizes the *physical location* of male power. Hegemonic masculinity has been firmly rooted in the global North. It has also been characterized by a particular movement and dynamic in international affairs: an ascendance of masculine industrial power in the global North, emanating outward to the South. Reformulating the concept, Connell and Messerschmidt (2005) point out that hegemonic masculinity now requires a "geography." Along these lines, I argue that men in the global South are shifting the centers of economic power through resources in the information economy. Sites of technological innovation and production are emerging in countries like India, and their flows of resources and finance are moving in the opposite direction—toward the global North.

As a related point, techno-masculinity is reworking the *ethnic-racial foundation* for male power in the era of the information society. Hegemonic masculinity has been associated with a particular ethnic, racial, and national makeup. Its agents and proponents have tended to be of European origin and white. With the growth of ICTs, however, we are seeing agencies by men in Asia, Latin America, and Africa, changing the "color" of the participants to brown, black, and other nonwhite categorizations.

This is highly threatening to the global North, which has considered science and technology as its own. Scholars in critical race and science and technology studies have discussed this as a process of racialization (Harding 1993; Nelson et al. 2001). Technological imageries and practices in the global North have been imbued with whiteness, as male scientists and technicians have commandeered them as national and racial property. Prasad (2006, 219) illustrates these ideals in popular fiction: "[White] Americans are born with an instinct for fooling around with machines" while other ethnic groups like Native Americans "are born with an instinct for . . . hunting, fishing," that is, fooling around with nature. With this kind of postcolonial perspective, the "love of tinkering" and other defining features of techno-masculinity are placed within a geographic and racial frame—not just a gendered one as noted earlier. Moreover, the ownership of techno-masculinity by the US is a notion that travels. Illustrating the globally hegemonic spread of this ideal, Prasad recounts how he was taught this by his childhood teachers *in India*. It becomes part of pedagogy worldwide. I will show how the ethnocentricity of techno-masculinity is being challenged by actors in the global South.

Techno-masculinity based in the global South may offer an alternative *narrative of globalization*. Hegemonic masculinity in its classic form has carried a message of neoliberalism. As they increase their status and power in the global economy, some Indian men in the ICT industry will also subscribe to these ideals. They may reproduce the narratives of elites whom they are standing next to or replacing. However, counternarratives may emerge from the global South and India in particular, given its former position as a colony in the imperial project and its history in anticolonial movements. Indian activists have been leaders in the resistance against transnational power and in current anti-globalization campaigns. Thus, for Indian IT professionals, neoliberalism may not necessarily be the sole guiding principle.

Furthermore, India offers a wide-ranging critique of science and technology as a field (Prasad 2006). There are many "alternative scientific movements" in India, or grassroots "peoples' science movements" (Varma 2006). Some of these protest the historical uses of Euro-science for war and conquest. Others promote and protect indigenous sources of knowledge and technology (Shiva and Holla-Bhar 1993). And while it may seem contradictory, some even embed science and technology within religious imperatives like Hindu fundamentalism (Nanda 2003). They deploy ICTs to advance the goals of their political movements, especially their campaigns against other groups like Muslims. Alternatively, leaders like Gandhi fashioned techno-masculinities to uplift the disenfranchised. As one of the iconic figures of masculinity in India, he encouraged minimal or selective uses of technology (Sundaram 2000). His ashrams were built around alternative devices that empower local communities. Whatever the character or source, Indian paradigms of technology and science can run counter to those of the global North. Indian ICT men, in turn, may carry those diverse viewpoints in their engagements with the information economy.

Finally, techno-masculinity has a varied internal structure or *composition* that challenges the homogeneity of hegemonic masculinity. This core concept has remained surprisingly uniform, despite its framing in the theory of "multiple masculinities" (Connell, Hearn, and Kimmel 2005). In response, scholars like Hearn (2004a, 60; my emphasis) have asked: "*which men* and *which men's practices*—in the media, the state, religion, and so on—are the most powerful in setting agendas of systems of differentiation" between men, between men and women, and so on? Toward this end, he argues for a "gendered multi-level theory and gendered multi-actor analysis" (2004b, 273).

I adopt such an approach in considering the broad distinctions between Indian and US techno-masculinities, as well as those at specific meeting points of globalization. I show how techno-masculinities take distinct shapes in three contexts—the national, global, and transnational.[2] Strikingly, power relations between the US and Indian men change direction across these different sites.

The *global* represents the realm of comparative national standing—how states measure up to one another in international hierarchies of technical capacity. The US exhibits dominance over India here. It is empowered in its material resources and infrastructure for carrying its techno-masculine project. This represents the closest approximation to hegemonic masculinity, in the sense of classic power by the global North over the South.

The *national* level signifies the role of the state, media, and other institutions, in constructing an internally hegemonic vision of masculinity for a society. It varies by the degree to which technology is integral to, or rejected by, dominant masculinities. For instance, technology forms the basis of and *enhances* hegemonic masculinity in the political rhetoric of India, whereas in the US, technology *detracts* from manliness and is equated with subordinated masculinities, if not effeminacy.[3] Thus, here is where we start to see reversals in the traditional or expected order of masculinities across countries.

The *transnational* level is where these varying techno-masculinities meet and come in contact. Hearn (2004b) underscores the "trans" element of this realm, reminding us of the critical dynamism to globalization. He describes how the transnational involves the "moving across" of actors between boundaries (like the nation-state), as well as the "metamorphosing" of such boundaries. Interactivity is a defining feature of the transnational. If face-to-face interaction can occur at the "local" level (Connell and Messerschmidt 2005), my objective is to show how this kind of relationship occurs at the transnational as well.

In India, the meeting of transnational masculinities has been considered in the context of colonialism (Nandy 1983; Sinha 1995; van der Veer 2001). Ashis Nandy, in fact, coined the term *hypermasculinity* to describe the narratives and tactics of the British Empire in India: "The colonial culture depended heavily on Western cosmology, with its built in fears about losing potency . . . and the ability to be violent" (1983, 54–55). The notion of the "effeminate Bengali" Indian was created as a means of enhancing the status of the "manly Englishman" (Sinha 1995). This analysis shows how masculinities are not static, but generated *through* the interaction (and in this case, within a positioning of global North over South). Yet, it begs the question of what is happening in the contemporary era and in the context of the information society.

In this chapter, I focus on the transnational because this is where Indian IT professionals take active roles in resisting global power. It is where we see challenges to the US dominance of techno-masculinities, and where preexisting positions are equalized and in some cases reversed. The first section focuses on the relation of Indian to US masculinities, in other words, interactions *between men*. The second considers the relation of *men to women*, that is, Indian techno-masculinity to femininity within India and the diaspora. It describes how Indian men are using their ICT resources for and against women, and for broader social empowerment and disempowerment.

AGENCIES OF INDIAN TECHNO-MASCULINITY

The transnational sphere itself is multilayered. The information society empowers men across a range of occupational and class levels, and therefore Indian masculinities are showing themselves at various sites in the transnational arena, especially with regard to the US. Here I focus on four occupational groupings of men in particular, starting at the top and working downward.[4]

Techno-Entrepreneurs

Indian techno-masculinity has asserted itself, to begin with, at the highest echelons of the global IT economy. As CEOs and captains of industry, Indian men are challenging global North masculinities with resources of capital and enterprise. Their success often comes through financing technological and informational commodities.

This trend is evident in the *Forbes* magazine "billionaires" list of 2008. In this annual ranking of the world's richest men, we see how the faces of elite men are changing. Until recently, these lists were dominated by pictures of men from the global North. By 2008, four of the top ten were Indian: Lakshmi Mittal ($45 billion), Mukesh Ambani ($43 billion), Anil Ambani ($42 billion), and K. P. Singh ($30 billion). Mittal, at the lead in this group, gained his fortune in telecommunications. The head of India's most powerful ICT lobby group, Nasscom's Kiran Karnik, was selected in 2003 as *Forbes*'s "Face of the Year" (Singh 2003).

Several structural dynamics have empowered Indian men lately. One is a recentering of capital and financial power. The global North is gradually losing its hold as the nexus of transnational markets, and India is one of the countries moving toward its place. India is currently fourth among the world's largest economies (measured by gross domestic product), at $4.06 trillion (Shah 2011). It is trailing Japan only by a small margin, though, and will soon move up to number three. At that point, it will sit behind China (number two) and the US (number one). Collectively, these rising countries will soon reach and outpace that of the dominant countries. "By 2035 . . . the combined economies of emerging markets [including India] will be larger than (and by the middle of this century, nearly double) the economies

of the US, Western Europe, or Japan" (van Agtmael 2011, 31). Technical know-how is a prime source of their newfound dominance, as van Agtmael continues: "Multinational corporations headquartered in developing countries are increasingly challenging western companies in technology, marketing, and design."

A second structural change empowering elite Indian men is a redirection of capital flows. Instead of moving from the global North to the South, finances are increasingly moving from South to North, and South to South. A sign is how Indian men are buying and taking over European media firms. In 2008, the *Times of India* (the widest circulating English-language newspaper globally) purchased Scottish-based Virgin Radio Holdings for $105 million (Timmons 2008). This reflects an ironic trend in the ICT economy: the same technologies that are troubling to the media economies of the global North may be beneficial to those of the global South. The Internet has become a source of competition for traditional media outlets, and in turn, many newspaper, television, and radio firms in the US, Western Europe, and Japan are struggling. By contrast, those in emerging markets are primed for growth, given their rapidly expanding middle classes, consumers, and audiences. It's quite telling that Indian men are now reversing the colonial relationship by acting as saviors of ailing ICT ventures in the global North.

Indian entrepreneurs are not only sending capital to the global North; they are planting their feet and settling into high-tech regions. In Silicon Valley, Indians founded or ran 774 high-tech start-ups between 1980 and 1998 (Saxenian 2000). Several of these firms were supported by Indian capital or initiated as subsidiary units of Indian multinationals, like Infosys and Satyam Computers. Firms run by Asians in Silicon Valley accrued $16.8 billion in sales and employed 58,282 workers in 1998. By 2005, over half of the start-up firms had an immigrant as a key founder, with Indians comprising the largest group—surpassing the Chinese from earlier periods (Wadhwa et al. 2007). The same kind of pattern is happening in the Massachusetts region. Almost one-third of its science and engineering firms were founded by foreign-born entrepreneurs. Indians are especially successful in biotech, comprising 12 percent of the founders of those firms (Monti et al. 2007). Such firms yield approximately $7.6 billion in revenue, and provide 4,352 jobs to that state community. Across the US, immigrants were more than twice as likely as native-borns to start a company in 2010. Almost half of the fifty top venture-backed firms are now immigrants, with Indians leading all other countries (Adhyaru-Majithia 2011).

As a sign of their growing independence from the global North, India's ICT businessmen are forming partnerships without it altogether—and instead with other men *in the global South*. India's largest mobile phone company, Bharti Airtel, came close to a merger with South Africa's top firm, MTN Group, in 2009. Africa is the fastest-growing cell phone market globally and second in cell phone subscribers behind Asia (Bryson 2011).

This merger, therefore, would have formed "the third largest telecommunications company in the world" (after those in China and the UK) in terms of revenue and subscribers (Timmons 2009). Sunil Mittal, CEO from India, was in negotiation with CEO R. S. Dabengwa, a black South African. With this kind of South–South collaboration in the future, the constellations of ICT power may operate outside of the global North completely.

The US state is worried by these techno-masculine subversions from the global South. A report issued by the National Intelligence Council (2008, 29, 37) warned that by 2025, "a global multipolar system will emerge" in which India is a "rising heavyweight" along with China. It is particularly concerned about "A World without the West." In this scenario, "Western alliances will weaken" and "new powers supplant the West as leaders on the World Stage."

Knowledge Professionals

Closely related to the ICT entrepreneurs are the Indian engineers and professionals. They are also involved with exchanging data as a commodity, but they are lower in the information hierarchy and tend to be closer to the middle class. An important resource at this level of the transnational is IT labor power. Rather than through firms or finance, their agency of techno-masculinity is through knowledge production, especially "research and development" work.

As highly skilled technical employees, Indians are providing a significant portion of the knowledge work for the U.S. economy (Varma 2006). Indians make up 11 percent of the US scientific and technical workforce nationwide, even though they are only 4 percent of the overall population (ibid.). Over half of the scientific and engineering workforce in Silicon Valley was foreign-born in 2000, with Indians again representing the largest share. Affirming the gendering of this pattern, 80 percent of these Indian engineers are male, according to a survey of twenty-seven hundred conducted in 2001 (Dossani 2002).

These male IT professionals forge tight networks that create a "transnational capitalist class" (Upadhya 2004). Indians in Silicon Valley connect and communicate through their former IT educational institutions back in India. They also form associations, such as the Indus Entrepreneurs, which function as a source of formal mentoring and as an informal venture capital conduit for other Indian professionals. This is how, for example, Exodus Communications became a $10 billion company for K. B. Chandrasekhar and B. V. Jagadeesh.

Some of these men have transferred their achievements to the political realm, so that they hold notable forms of state power. Bobby Jindal—an immigrant engineer—won a governor's seat in Louisiana in 2007. He was the first to break 191 years of white leadership in that state, and the first person of Indian origin to be governor in the US. Indian-origin scientific

and technical personnel living in the US have formed a variety of political action committees, such as the US-IN Pac, United States India Business Council, and Indian American Friendship Council, which have been lobbying the US government at the federal level. The first chief information officer for the White House was a person of Indian origin. Vivek Kundra took on this role for the Obama administration in 2009, overseeing security, privacy, and sharing of information for the state.

These Indian men are achieving technical prominence from within the core of the US information industry.[5] In the process, they are challenging racial hegemony in IT in the US and forging a path for other Indian men in what is sometimes an ethnically hostile landscape (Nakamura 2002; Nelson et al. 2001). Furthermore, Indian men are supplying critical building blocks for the US information economy. Some might argue that it is progressing through the minds of Indian (and other Asian) men (Aneesh 2006; Nayar 2008). At the same time, these men are also strengthening the ICT industry in the global South through their networks within India.

Cyber Managers

From the midlevel of the transnational, Indians are challenging techno-masculinities of the global North as men of high-tech multinational corporations (MNCs). These are not the owners, CEOs, or high-status professionals—they are the men who run the global firms. Their agency is in overseeing the policies and personnel, so one could say they administrate the infrastructure for the information economy. Their power is in their location. They contest the authority of US techno-masculinity *from within* the multinational firms.

In my study, for instance, Indian male managers rarely accepted or adopted policies from the head office straight up. This happened in a US computer manufacturer (AmCo) and its transnational firm in India (TransCo).[6] Alongside firms like Intel, Microsoft, Texas Instruments, Motorola, and so on, AmCo took advantage of Indian neoliberal economic reforms in the early 1990s to set up offices in New Delhi. AmCo represents the hegemony of US high-tech industries in this sense. However, when northern firms such as AmCo send their businesses abroad, they often hire local men as directors, who then have influence over what happens there. TransCo managers, as Indian nationals and Indian immigrants from the US, used their positions to subvert the masculinity of the US parent in several ways (Poster 2008a).

To begin with, TransCo managers rejected certain employee policies from AmCo. They found that US work-family programs were failing to assist female and male employees in the local environment. Therefore, they broadened and improved those programs. They expanded "flex-time" to be more open in work arrival and departure times. They introduced new policies like "alternative work options." Taking advantage of ICT

infrastructures, they added possibilities for job sharing, telecommuting, and so on, so that employees could work in different locations via the Internet. They also added a series of over seventy subsidies and benefits for families (such as home cleaning service and school tuition for children) that "even the high level managers back in Silicon Valley don't get," to quote one of the managers. Based on their location, geography, urban conditions, philosophies, and so on, these Indian managers integrated business perspectives from multiple vantage points to make policies that were innovative and unique.

In other cases, though, TransCo men wielded their authority irresponsibly. They disregarded equity and diversity guidelines from the Silicon Valley office, insisting that there was "no gender problem" in hiring and promotions in India. This left them with the worst record of women in management across all of AmCo's Asian offices. Aside from oversight, the agencies of male managers in high-tech MNCs against women can be intentional and strategic. This has been documented in US electronics firms in China, Malaysia, and Mexico, as well as India, manufacturing circuit boards, televisions, and so on. The high-tech industry is notorious for transnational managers who carefully select and activate local and global narratives of gender, race, and nation to maximize their exploitation of women factory workers (Chhachhi 1999; Lee 1998; Ong 1987; Salzinger 2003; Wright 2006). These male managers in the information economy advance the profit-seeking ideals of neoliberalism laid out by hegemonic masculinity and adapt them through local lenses, to the expense of women in the global South.

The transnational space is a window for Indian men—between the direct hands of authorities in either the global North (like the parent firm) or the global South (like the local state)—to craft technological and labor relations in their own interests. Within this context, midlevel Indian professionals sometimes use their positions and resources to override imperatives of the global North. Instead of accepting the hegemony of US firms, they redesign IT organizations in their own visions or with their own agendas, whether for good or bad.

Virtual Service

At the lower levels of the information economy, Indians are asserting their techno-masculinities as workers in the field of ICT service. This takes place in a different transnational context of information economy: virtual spaces over the Internet. It also involves more micro kinds of agencies: interactional power within conversations between an employee and customer. Unlike the cases in the preceding, the resources mobilized here are neither financial nor organizational. The information economy offers tools for working- and middle-class men in India in the form of knowledge power, technical skills, and virtual mutability.

Starting around the year 2000, US firms began sending their back-office clerical jobs to India. Some is customer service work, heavily based in communication, and therefore operates through satellite phone connections, fiber-optic cable linkages, and the Internet. In these call centers, Indian employees handle complaints and queries from consumers in the US (and other countries). This industry has grown to half a million workers in the span of a decade. It tends to be male dominated, at about 60 percent (Holman, Batt, and Holtgrewe 2007) and often takes on masculine undertones.[7] Deference is an integral part of service work, and accordingly, one might expect American consumers to be empowered over Indian workers within these conversations. However, Indian men in call centers use their techno-masculine resources to destabilize those relations.

Enhanced technical knowledge is one of those tools. Oftentimes, these workers are superior to the US Americans they talk to in terms of education, affluence, health, and so on. Indian call center workers are largely middle-class, young, and highly skilled men. With IT backgrounds, many have aspirations in the higher paid and more competitive sister industry of software outsourcing. On the other hand, the US consumers who use these services are often seniors, working class, single mothers, or disabled. This is especially true of collections industries that use telephone communications to target poor and less-educated consumers and computer industries that hire call center workers for technical help services.

Given this imbalance, some Indian men in my study used their dominant masculinity to exploit the vulnerabilities and weaker knowledge base of US American consumers. One employee commented: "Some callers are like children. They can't even find the start button on the computer. At least with children, you can sit down and show them." These workers would capitalize on insecurities to encourage consumers to purchase things they don't need: "I have sold things to them which can't be sold—like a phone message service to a housewife, who clearly doesn't need it since she is home all the time anyway to answer the phone herself."

Male call center workers would also use the technology and information at their disposal, however simple, to gain leverage over US customers (Poster 2011). They press hold buttons on their phones (and features on the customer's computer) to take a break. They record customers while they talk and create databases on them, independently of managers sometimes. With personalized information on their computer screens, they strategize the best way to manipulate Americans emotionally during the call, for example, how to gain their trust and then persuade them to buy a product or pay a bill.

Some men in my study were eager to use virtual identity shifting to manipulate customers. Networked communications offer many techniques for swapping and morphing personas. Corporations in the global North have seen this as an opportunity to deploy "national identity management" (Poster 2007). They have asked Indian call center employees to pose as

US Americans, conveying through their words, accent, and sounds on the phone that they are in the US. Many employees in my study resisted this process. Among the rest, however, male workers were more likely than the females to see it as beneficial. They found it to be an efficient means of enhancing their power over US consumers. They not only practiced national identity management willingly; they invented new ways of carrying it out for making the sale.

Indian men in call centers use ICTs in positive ways, too, as discussed next. The point here is that even in this marginalized site of the information economy, and with less sophisticated technical tools than the elites we started with in the preceding, Indian men contest US masculinities in the transnational arena.

IMPLICATIONS OF INDIAN TECHNO-MASCULINITY FOR WOMEN

What are the implications of these "subversions"? What are these rising Indian men doing with their newfound power in technology and finance? Are they using it for empowerment or disempowerment of their communities? Here I show how Indian techno-masculinity can be enacted in multiple ways, for society and for women.

Some IT professionals use their ICTs against women. This happens in both virtual and material worlds. For instance, Indian websites emerging in the last decade have sponsored regressive messages about femininity and women. They valorize women's subservient positions to men in the family, like Bahu.com, which refers to the Hindi word for "daughter-in-law." Others emphasize women's domesticity and consumerism. Namaste.com features pictures of light-skinned, bindi-adorned women shopping for the household, while men with their sons navigate financial and technological flows in front of computers. These images create "a homology where middle-class Hindu femininity is articulated to issues of consumption, labor, the private and national and middle-class Hindu masculinity is linked to issues of production, capital, the public, and the transnational" (Mallapagada 2006, 214). The virtual world has become a site for Hindu fundamentalists to revive or reinforce patriarchal images (Gajjala 2003; Mallapagada 2006).

These narratives are reinforced in transnational media. Themes of computer technology and transnationalism are increasingly prevalent in Indian film and television, and they are equated with manhood (Pal 2010a, 2010b). Studies show that, after viewing these images, Indian men (both nationals and those in diaspora) are more likely to "reserve these public pleasures and privileges for themselves" and shield them from women (Derne 2008, 157). Violence is also integrated in this mix. Images are not only technological, but brutal, enhanced further by special effects. In turn, Indian men are often drawn to the possibilities of male strength and dominant masculinities.

ICTs are providing a landscape for new forms of harassment by Indian men. Hearn and Parkin (2001, 135) note that "the Internet and ICTs can be and are used for the delivery of sexuality, sexual performance, sexualized violence, violence and violation, as in the promotion of racist hatred and racial violence." In India, the Internet has been the site of over ten different kinds of cybercrime against women, including cyberharassment, stalking, bullying, defamation, hacking, email spoofing, morphing, and pornography (Halder and Jaishankar 2008).

Such practices extend to the off-line world. The entrance of Indian men to ICT positions has been associated with highly publicized physical assaults against women. Take the international call centers, for example. One incident occurred in 2003 when a call center worker, at home during the day, was arrested for raping the maid in his house (Times News Network 2003). Another case happened in 2005 when a female call center agent, Pratibha Murthy, was raped and murdered by her employee-sponsored shuttle driver, as the last one on the bus (*Asian Pacific Post* 2005). The global outsourcing industry involves a reversal of work time, running almost entirely at night. Women can fall prey to this temporal disjuncture. Whether they are call center workers themselves or personal employees of call center workers in their houses, women become isolated and more vulnerable to crimes by men.

Furthermore, abuse by Indian IT professionals can be conducted transnationally—from positions in foreign countries. One trend is bride abandonment. Thousands of male Indian immigrants (largely employed in IT fields) reportedly go home to get married, receive the dowry, and then leave without their spouses. A parallel trend is called nowhere brides or holiday brides. These women are brought to the husband's new country of residence, where they face a range of mistreatments: physical assault, confinement to the house, discovery that the groom is already married, being held ransom for payments from her family back in India, or abandonment at the airport. This is especially problematic in the northern state of Punjab. Between 2009 and 2010, there were over five hundred complaints registered to the Indian state about this phenomenon. They came from twenty countries, from Thailand to Brazil to Norway (National Commission for Women 2011). The government set up a special "NRI [nonresident Indian] Cell" to handle overseas Indians and their deserted Indian brides in 2009. However, there is little recourse by the state at this point.

A more gruesome transnational trend is contract murder. Between 2006 and 2008, there were twelve cases of Indian expatriates abroad hiring criminals to harm or kill enemies back in the state of Punjab. The victims are usually family members, and the conflicts are often related to property or marriage (Raaj 2008). As the ultimate example of aggression, immigrant IT professionals have used their global connections to facilitate communal and political violence back in India. NRIs in the US—including their IT firms in Silicon Valley—have raised substantial amounts of funds through tax-exempt charities for the Hindu nationalist group Rashtriya Swayamsevak Sangh (RSS). Cisco, Sun Microsystems, and Oracle put such groups on their list of charities with matching donation programs for employees (Luce and Sevastopulo 2003). Those resources were linked to RSS activities in 1992 massacres, when two thousand Muslims were killed in riots in the state of Gujarat. This was one of the worst cases of sectarian violence in recent Indian history. It shows how the domain of ICTs can be appropriated by religious extremist segments of the Indian techno-science agenda. This is a cautionary tale of men and technology in the transnational realm. At the same time, there are parallel trends among Indian ICT men in promoting women's empowerment. The examples of men organizing for gender equity are plentiful. For instance, Indian professionals like Raj Jayadev are crusaders for women's labor rights in Silicon Valley IT firms (Snitow and Kaufman 2001).

Many Indian immigrants are carrying their gains (both financially and symbolically) back home to uplift the national economy. They do this through cross-border networks, firms, and financial circuits. NRIs are known for their tendencies to send money back to the nation. India ranks at the top of remittance-receiving countries worldwide—$21.7 billion in 2004 (Sassen 2008). With these funds, IT professionals are sustaining their families in India and much more. Philanthropic giving to India is a frequent activity among NRIs in the US (Bornstein 2009). Many are highly committed to improving their communities in India, and have poured extensive resources into infrastructure development, educational institutions, and civic engagement centers so that people have easier access to local government (Chacko 2007). Some male IT professionals have been particularly effective in promoting women in their hometowns. An example is Jagadish Shukla, an MIT professor who saved a tenth of his salary each year for his village in Uttar Pradesh (Waldman 2003). He opened a college there with five hundred students, of whom 70 percent are female.

It is not uncommon for the Indian owners, managers, and workers in ICT firms to use their resources for the public good. For instance, my research on high-tech MNCs shows how Indian managers can create better policies for women workers than those of either the parent or other local organizations. In the transnational space of the MNCs, these men have the ability to override and improve employee benefits from the US.

Some men in call centers, likewise, have provided services for women, the indigent, and communities in crisis. They do this, moreover, for groups who are both local and international. A male call center employee in my study developed personal relationships with his female customers, calling them back regularly to counsel them on their problems (Poster 2007). Another supported women callers who were poor and single mothers, even when it meant defying his boss about forcing sales or risking their credit. ICT professionals can be quick to help in times of social emergency. In the state of Gujarat, a call center manager used his organization to help victims

in Texas during Hurricane Rita (BBC News 2005). His partner firm in the US was closed due to the storm, so he shifted operations to the Indian call center and set up special help lines. Employees fielded calls from hundreds of US Americans, providing information on evacuation plans and how to locate shelter.

Such Indian IT professionals are performing a version of manhood that counters transnational business masculinity and other domineering forms common to the global North. They are influenced by an imagery of masculinity (perhaps similar to the historic Indian paradigms of Gandhi) that technology should be used to uplift grassroots communities rather than to exploit them.[8]

In this way, the deployments of techno-masculinity run across the spectrum from empowerment to disempowerment. Some are informed by neoliberal agendas of the global economy and hegemonic masculinity, others by the national context of India, and still others are created through transnational dynamics and the negotiations of spaces between sites.

CONCLUSION

The value of focusing on techno-masculinity is exposing an ascendant form of masculinity on the world scene. It is not based solely in militarism, politics, or finance. It does not require a government, army, or bank to enact or perform it. Rather, the tools are more readily available in everyday and advanced information and communication technologies: technical education, computers, software, the Internet, mobile phones, and so on. Thus, techno-masculinity is not the domain of traditional elites alone, by class or geography. A wider range of men can practice it, especially those from the global South.

Indian techno-masculinity, in particular, has risen in its presence and influence. Indian men are achieving dominance in the information economy, both at home and abroad. They are utilizing and benefitting from informational commodities, knowledge skills, and virtual mutability. Their strategies are both grand and routine, in cultivating ICT multinationals, producing ICT knowledge, and manipulating technology within phone calls.

The implications of Indian techno-masculinity for global geopolitics are striking. That men in a global South country—one of the most impoverished, no less—can advance in the world economy by putting resources toward ICTs reveals a subversion if not reversal in the neoliberal order. It reflects a decentering of postcolonial power and a surge in momentum of the global South. The aim of this analysis is not to declare winners and losers in the transnational pantheon of masculinities, however, but to draw attention to shifting relations. It suggests that, with the advance of the global South through ICTs, masculinities will be in an ongoing struggle and may exhibit multiple outcomes.

Theoretically, this analysis documents how techno-masculinity poses a challenge to hegemonic masculinity, and more specifically, to transnational business masculinity. Techno-masculinity has its own basis of power, as well as its own narrative of manhood, geography, and ethnic/racial makeup. It may converge at certain moments, but, increasingly, it is resistant and oppositional to transnational business masculinity. This chapter also shows how trends of Indian techno-masculinities are both transgressive and regressive of gender relations. While the advancement of Indian techno-masculinity represents an empowerment over that of the global North, it is also associated with many kinds of disempowerment over other groups, including women.

Many questions remain. Does Indian techno-masculinity have the potential to become globally hegemonic in the way, for instance, that US techno-masculinity has been in the past? How will Indian ICT professionals use their power? Will they lead a path for social justice or promote an alternative techno-science and gender order? More broadly, it will be interesting to watch techno-masculinities from other emerging economies as well—such as Brazil, Russia, and China—as well as examining the changing form and impact of their subversions.

NOTES

1. I use the terms *global North* and *global South* to draw attention to inequalities among countries that tend to be mapped out (at least partially) on geographic lines (i.e., US, Canada, Europe, and Japan versus South America, Africa, South/Southeast Asia, etc.). These terms reflect current sociopolitical hierarchies in a less normative manner than previous concepts, like First or Third World, developed/developing, industrialized/industrializing, and so on. However, they reify binaries and overlook important variations within and across the two zones, such as the marginalized nations in the North and the powerful nations in the South. See Rai (2002) for an informative discussion. I look forward to continued discussion on this terminology and the search for better options in the language of globalization.

2. I describe the *national* and *global* forms of techno-masculinity in more detail in another analysis (Poster 2008b).
3. This subordinated role of the geek imagery in the US provides a stark contradiction to the financial dominance of the IT industry. It is a testament to the complex nature of masculinities and how a single persona can be viewed as powerful and powerless at the same time. See Kendall (2002) for an enlightening discussion of this. In my analysis, I see these two characterizations as a difference between symbolic versus material techno-masculinities, as well as a difference of dynamics on national versus global levels, and so on.
4. As I go through this list, I don't mean to sidestep or overshadow the important role of Indian women in ICTs. Much of my other work is on the accomplishments of Indian women in the technical sphere. The relation between Indian techno-masculinity and techno-femininity is an interesting question for future studies.
5. The experience for Indian IT men in diaspora is not always rosy. There is a parallel underclass of "bodyshoppers" doing highly precarious and often exploitative contract work (Aneesh 2006; Xiang Biao 2007). They also face derogatory images appearing in Western media outlets (Amrute 2010).
6. Names of firms have been changed to preserve the anonymity of the informants.
7. In many parts of the world, this work is female dominated. India has a higher concentration of men for many reasons, one being that the industry operates at night to cater to the US American daylight.
8. Gandhi's narrative of masculinity, it should be noted, was contradictory regarding gender and not always woman empowered, as Karen Gabriel (2009) has outlined.

REFERENCES

Adhyaru-Majithia, P. 2011. "Indians Are Real Fuel in America's Growth Engine, Reveals Study." *Times of India*. http://timesofindia.indiatimes.com.
Amrute, S. 2010. "Migrant Programming." Paper presented at the STS-South Asia Conference, University of Texas at Austin.
Aneesh, A. 2006. *Virtual Migration*. Durham, NC: Duke University Press.
———. 2009. "Global Labor: Algocratic Modes of Organization." *Sociological Theory* 27 (4): 347–70.
Asian Pacific Post. 2005. "Call Centre Rape and Murder Stuns Outsourcing Industry." 22 December, 2. www.asianpacificpost.com.
BBC News. 2005. "Indian Centre Helps Rita Victims." 9 September. http://news.bbc.co.uk/go/pr/fr/-/2/hi/south_asia/4283468.stm.
Beasley, C. 2008. "Rethinking Hegemonic Masculinity in a Globalizing World." *Men and Masculinities* 11 (1): 86–103.
Bornstein, E. 2009. "The Impulse of Philanthropy." *Cultural Anthropology* 24 (4): 622–51.
Bryson, D. 2011. "Africa Mobile Market Is Fastest Growing on Earth." *Huffington Post*, 9 November. http://www.huffingtonpost.com/2011/11/09/africa-mobile-market-fastest-growing_n_1083832.html?view=print&comm_ref=false.
Burris, B. H. 1989. "Technocracy and Gender in the Workplace." *Social Problems* 36 (2): 165–80.
Castells, M. 2000. *The Rise of the Network Society*. 2nd ed. Malden, MA: Blackwell.
Chacko, E. 2007. "From Brain Drain to Brain Gain." *GeoJournal* 68:131–40.
Chang, K. A., and L. H. M. Ling. 2000. "Globalization and Its Intimate Other: Filipina Domestic Workers in Hong Kong." In *Gender and Global Restructuring: Sightings, Sites, and Resistances*, edited by M. Marchand and A. S. Runyan, 27–43. London: Routledge.
Chhachhi, A. 1999. "Gender, Flexibility, Skill and Industrial Restructuring: The Electronics Industry in India." *Gender, Technology and Development* 3 (3): 329–60.
Cockburn, C. 1985. *Machinery of Dominance: Women, Men and Technical Know-How*. London: Pluto.
Connell, R. W. 1998. "Masculinities and Globalization." *Men and Masculinities* 1 (1): 3–23.
Connell, R. W., J. Hearn, and M. Kimmel. 2005. "Introduction." In *Handbook of Studies on Men and Masculinities*, edited by M. Kimmel, J. Hearn, and R. W. Connell, 1–13. Thousand Oaks, CA: Sage.
Connell, R. W., and J. W. Messerschmidt. 2005. "Hegemonic Masculinity: Rethinking the Concept." *Gender & Society* 19 (6): 829–59.
Derne, S. 2008. *Globalization on the Ground*. Los Angeles, CA: Sage.
Dossani, R. 2002. *Chinese and Indian Engineers and their Networks in Silicon Valley*. Stanford, CA: Asia/Pacific Research Center, Stanford University.
Evans, P. 1995. *Embedded Autonomy*. Princeton, NJ: Princeton University Press.
Faulkner, W. 2000. "Dualisms, Hierarchies, and Gender in Engineering." *Social Studies of Science*, 30(5), 759–92.
Forbes. 2008. "Billionaires 2008." *Forbes* 181 (6): 80–87.
Gabriel, K. 2009. "Resisting Men: Gandhi, Gender, and Anti-Colonialism." In *GEXcel Work in Progress Report Volume VI. Proceedings from GEXcel Theme 2: Deconstructing the Hegemony of Men and Masculinities Conference 27–29 April 2009*, edited by A. Biricik and J. Hearn, 161–70. Linköping and Örebro: Institute of Thematic Gender Studies, Linköping and Örebro Universities.
Gajjala, R. 2003. "South Asian Digital Diasporas and Cyberfeminist Webs." *Contemporary South Asia* 12 (1): 41–56.
Gray, C. H. 2000. "Man Plus: Enhanced Cyborgs and the Construction of the Future Masculine." *Science as Culture* 9 (3): 277–99.
Hacker, S. L. 1981. "The Culture of Engineering: Woman, Workplace and Machine." *Women's Studies International Quarterly* 4 (3): 341–53.
Halder, D., and K. Jaishankar. 2008. "Cyber Crimes against Women in India: Problems, Perspectives and Solutions." *TMC Academic Journal* 3 (1): 48–62.
Harding, S., ed. 1993. *The "Racial" Economy of Science*. Bloomington: Indiana University Press.
Hearn, J. 2004a. "From Hegemonic Masculinity to the Hegemony of Men." *Feminist Theory* 5 (1): 49–72.
———. 2004b. "Tracking 'the Transnational': Studying Transnational Organizations and Managements, and the Management of Cohesion." *Culture and Organization* 10 (4): 273–90.
———. 2006. "The Implications of Information and Communication Technologies for Sexualities and Sexualised Violences." *Political Geography* 25:944–63.
——— and W. Parkin. 2001. *Gender Sexuality and Violence in Organizations*. London: Sage.
Holman, D., R. Batt, and U. Holtgrewe. 2007. *The Global Call Center Project*. http://www.ilr.cornell.edu/globalcallcenter/.
Hooper, C. 2001. *Manly States: Masculinities, International Relations, and Gender Politics*. New York: Columbia University Press.
Kendall, L. 2002. *Hanging Out in the Virtual Pub: Masculinities and Relationships Online*. Berkeley: University of California Press.
Lacey, A. T., and B. Wright. 2009. "Occupational Employment Projections to 2018." *Monthly Labor Review* November: 82–123.

Lee, C. K. 1998. *Gender and the South China Miracle: Two Worlds of Factory Women.* Berkeley: University of California Press.

Lohan, M., and W. Faulkner 2004. "Masculinities and Technology: Some Introductory Remarks." *Men and Masculinities* 6 (4): 319–29.

Luce, E., and D. Sevastopulo. 2003. "Saffron under Scrutiny." *Business Standard,* 22–23 February, 1.

Mallapagada, M. 2006. "Home, Homeland, Homepage." *New Media & Society* 8 (2): 207–27.

Mellström, U. 2004. "Machines and Masculine Subjectivity." *Men and Masculinities* 6 (4): 368–82.

Monti, D. J., L. Smith-Doerr, and J. McQuaid. 2007. *Immigrant Entrepreneurs in the Massachusetts Biotechnology Industry.* Malden, MA

Nakamura, L. 2002. *Cybertypes.* New York: Routledge.

———. 2008. *Digitizing Race.* Minneapolis: University of Minnesota Press.

Nanda, M. 2003. *Prophets Facing Backwards: Postmodern Critiques of Science and the Hindu Nationalism in India.* New Brunswick, NJ: Rutgers University Press.

Nandy, A. 1983. *The Intimate Enemy.* Delhi: Oxford University Press.

National Commission for Women. 2011. *Background Note on Issues Relating to NRI Marriages.* Government of India, Ministry of Overseas Indian Affairs. http://punjabpolice.gov.in/nri_cell.aspx.

National Intelligence Council. 2008. *Global Trends 2025: A Transformed World.* Washington, DC: US Government Printing Office.

Nayar, P. 2008. "New Media, Digitextuality and Public Space: Reading 'Cybermohalla.'" *Postcolonial Text* 4 (1): 1–12.

Nelson, A., T. L. N. Tu, and A. H. Hines. 2001. *Technicolor.* New York: New York University Press.

Ong, A. 1987. *Spirits of Resistance and Capitalist Discipline: Factory Women in Malaysia.* Albany: State University of New York Press.

Pal, J. 2010a. "Of Mouse and Men: Computers and Geeks as Cinematic Icons in the Age of ICTD." *iConference Proceedings* February 16: 179–87.

———. 2010b. "Rajnikant's Laptop: Computers and Development in Popular Indian Cinema." *Information Technologies and International Development* 6 (2): 39–54.

Peterson, V. S. 2003. *A Critical Rewriting of Global Political Economy: Integrating Reproductive, Productive, and Virtual Economies.* London: Routledge.

Poster, W. R. 2007. "Who's on the Line? Indian Call Center Agents Pose as Americans for US-Outsourced Firms." *Industrial Relations* 46 (2): 271–304.

———. 2008a. "Filtering 'Diversity': A Global Corporation Struggles with Race, Class, and Gender in Employment Policy." *American Behavioral Scientist* 52 (3): 307–41.

———. 2008b. *"Multi-Level Challenges by Indian Professionals to US ICT Hegemony."* Paper presented at the GEXcel Mini-Conference, Linköping University, Sweden, 20 November.

———. 2011. "Emotion Detectors, Answering Machines and E-Unions: Multisurveillances in the Global Interactive Services Industry." *American Behavioral Scientist* 55 (7): 868–901.

Prasad, A. 2006. "Beyond Modern vs. Alternative Science Debate." *Economic and Political Weekly,* 21 January, 219–27.

Raaj, N. 2008. "Murder Outsourced." *Times of India,* 24 February. www.timesofindia.com.

Rai, S.M. 2002. *Gender and the Political Economy of Development.* Cambridge: Polity.

Salzinger, L. 2003. *Genders in Production.* Berkeley: University of California Press.

Sassen, S. 2008. "Two Stops in Today's New Global Geographies: Shaping Novel Labor Supplies and Employment Regimes." *American Behavioral Scientist* 52 (3): 457–96.

Saxenian, A. 2000. "Back to India: Indian Software Engineers Are Returning with Enthusiasm and Entrepreneurial Know-How." *Wall Street Journal: Technology Journal Asia,* 24 January.

Shah, R. 2011. "India to Topple Japan as World's 3rd-Largest Economy." *Economic Times,* 20 September. http://articles.economictimes.indiatimes.com/2011-09-20/news/30180201_1_third-largest-economy-power-parity-indian-economy.

Shiva, V., and R. Holla-Bhar. 1993. "Intellectual Piracy and the Neem Tree." *Ecologist* 23 (6): 223.

Singh, S. P. 2003. "Karnick is Forbes 'Face' of the Year." *Times of India,* 22 December, 7.

Sinha, M. 1995. *Colonial Masculinity.* Manchester: Manchester University Press.

Snitow, A., and D. Kaufman. 2001. *Secrets of Silicon Valley (Videorecording).* Oley, PA: Bullfrog Films.

Sundaram, R. 2000. "Beyond the Nationalist Panopticon: The Experience of Cyberpublics in India." In *Electronic Media and Technoculture,* edited by J. T. Caldwell, 270–94. New Brunswick, NJ: Rutgers University Press.

———. 2010. *Pirate Modernity.* New York: Routledge.

Times News Network. 2003. "Call Centre Official Held for Rape." *Time of India,* 15 January, 4.

Timmons, H. 2008. "Indian Media Giant Buys Virgin Radio from Scottish Firm." *New York Times,* 2 June, C1.

———. 2009. "Foreign Phone Carriers Take a Step to a Merger." *New York Times,* 26 May, B3.

Turkle, S. 1995. *Life on the Screen: Identity in the Age of the Internet.* New York: Simon and Schuster.

Upadhya, C. 2004. "A New Transnational Capitalist Class?" *Economic and Political Weekly* 27 November, 5141–51.

van Agtmael, A. 2011. "Industrial Revolution 2.0." In *Annual Editions: Developing World 2011/2012,* edited by R. J. Griffiths, 26–31. New York: McGraw-Hill.

van der Veer, P. 2001. *Imperial Encounters.* Princeton, NJ: Princeton University Press.

Varma, R. 2006. *Harbingers of Global Change.* Lanham, MD: Lexington Books.

Wadhwa, V., A. Saxenian, B. Rissing, and G. Gereffi. 2007. *American's New Immigrant Entrepreneurs.* Durham, NC: Master of Engineering Management Program, Duke University.

Wajcman, J. 1991. *Feminism Confronts Technology.* University Park: Pennsylvania State University Press.

———. 2004. *TechnoFeminism.* Malden, MA: Polity.

Waldman, A. 2003. "Professor Teaches Change in His Indian Village." *New York Times,* 17 August, A17.

Wright, M. W. 2006. *Disposable Women and Other Myths of Global Capitalism.* New York: Routledge.

Xiang Biao. 2007. *Global "Body Shopping."* Princeton, NJ: Princeton University Press.