

CONSUMING WORK, PRODUCING SELF:
MARKET DISCOURSE IN DISPERSED KNOWLEDGE WORK

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ABSTRACT
Consuming Work, Producing Self:
Market Discourse in Dispersed Knowledge Work
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This dissertation argues that anthropology offers important insights into the ways that corporations shape workers understandings of their work, their colleagues, and themselves. Service industries and knowledge work represent a growing portion of work being done in the U.S. today, and yet the body of social sciences exploring this arena remains relatively small. The research draws on nearly six years of participant observation at the U.S. subsidiary of a global software company. Building on a rich anthropological tradition of industrial ethnography as well as on the lab ethnography tradition in science and technology studies, this study demonstrates the impact of national, industry, and internal company factors in shaping knowledge workers' daily experience in the corporate context.

While familiar corporate practices like budgeting and human resources are analyzed as mechanisms of employee control, this dissertation also explores how office space, socio-technical systems, and corporate communications (or lack thereof) shape employee behavior and experience. Globally distributed teams present new challenges for management, and since employee costs are the largest expense for corporations, this diaspora is not without risk. Thus, new forms of discipline have emerged to ensure that employees remain subject to

corporate demands. A growing trend towards self-management ensures that remote employees will remain compliant through the internalization of corporate objectives. In this context, market discourse serves to shape perceptions of the corporation not just from the outside, but from the inside as well. By capturing one high tech company's evolution from a technocratic to market-driven mindset, this dissertation also documents a transition in the management of workers, who – through the proliferation of market discourse internal to the corporation – have become not simply producers, but consumers of the company's future and their own careers.

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There are so many wonderful, supportive, patient people who have made this journey possible in one way or another. As I set these last words to paper, I'm sure that I'll leave out someone who pulled me through a desperate day of this eight-year process. I apologize in advance for any omissions.

From my earliest recollection, my parents have been a source of intellectual inspiration and support. Nearly every night, I had my favorite stories read to me, and as I grew older, my favorite novels in one chapter installments. I am sure that the love of learning and reading that was instilled in me is what has allowed me to read such a wide variety of literature and bring it together in the analyses that comprise this dissertation. One of my favorite family photos is a large glossy color print of my parents, both in cap and gown, smiling in the summer sunshine. My mother is pregnant with my little sister, and I am nearly four in the picture, peeking out from between them in a little red shirt and madras pants. There is nothing like having good role models right from the start! I would never have made it this far without my parents' loving attention and support, and I thank them for their unflagging interest in my professional, academic, and personal endeavors.

My sister Erika is four years younger and we often struggled with our differences as children. I feel fortunate that we've been able to reconnect as adults, and share not only our childhood experiences but now also our

professional interests. Her work in the design world provides a well articulated, challenging perspective on the place of anthropology in business.

If we are lucky we find teachers and mentors throughout our lives. I have been incredibly blessed to know individuals who have been an inspiration to me. To Mrs. MacDonough, who with amazing wisdom taught eighth grade history from the library's primary source materials. She sparked a passion for research and writing that I did not rediscover until my undergraduate degree at Smith College. To the faculty and students in the Whole Systems Design program at Antioch University in Seattle, who taught me the value of alternative education and who opened up for me the possibilities thinking and being in the world in a more holistic and humane way. To Carol Lennox, who in her own zany way showed me how to live with passion as both an academic and a practitioner. And to Solomon, who spent late night tinkering in the computer labs with me, and pushed me to set the highest professional goals I could imagine. It was Solomon who first challenged me to defend the field of anthropology and it's usefulness for the world today - well before I knew what I was talking about, I might add!

These and many others provided the foundation for me to make the journey to Temple University in Philadelphia, where I first began my research in the Anthropology of Visual Communication. I intended to look at historical photography, and although my early studies in the program still very much inform my research, my path has altered substantially since then. Jay Ruby was an important source of guidance and support during my early years of graduate

school. As with any good mentor, he recognized the point when my interests evolved and he could no longer help me, but has remained a good friend nonetheless.

Susan Hyatt and I started at Temple the same year, and it was through her course on Foucault that I escaped the rigid confines of first year course requirements. Hers was a lively class, and remains one of the best courses I took in graduate school because it forced me to think about concrete, familiar things in new ways. Later as an advisor and a friend, Susan Hyatt guided me through the rites of passage in the doctoral program; for all my growing knowledge on corporate life, certain aspects of academia (and Temple in particular) continue to remain a mystery to me, and Sue has patiently continued to help me cope.

I would also like to thank some of the other faculty who have shown an interest in me and my studies since I arrived at Temple. In particular, I'd like to thank Judy Goode and Niyi Akinnaso, who provided constructive feedback on my research through their role in my dissertation defense. I'd also like to thank Kasey Walker, who served as my outside reader and offered some helpful insights that strengthened my argument even as I headed into the defense.

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In one of the first pieces of writing I ever submitted for feedback, Hoa patiently circled each acronym and industry term that she did not understand. Perhaps anthropologists working in the high tech industry will appreciate the hilarity that ensued when the group questioned the relationship between 'best of breed' software and eugenics! But, after the shock of explaining my world of acronyms subsided, I realized that being forced to translate my work life into accessible terms for my friends has made this work infinitely stronger. Of course any remaining obscurity is strictly my own responsibility. The meetings of our group remain among the most positive and rewarding moments of my graduate school experience, as much for the intellectual stimulation as for the good food and laughter. I honestly believe I would still be All But Dissertation (ABD) without their camaraderie and support.

In early 2002, I sought out and conversed with a wide variety of anthropologists working in the high tech industry, because I wanted to understand what they did for a living, and what I could learn from their various experiences. In particular, I wanted to know what literature they found useful, how they negotiated studying up, what they themselves had written, and what

work still remained to be done. I dare not attempt to thank everyone here, because I will surely leave someone out! In summer of 2002, my individual queries evolved into a AAA panel, and those shared conversations grew into *anthrodesign*, a listserv and community forum comprised of social scientists, designers, and engineers working in a wide variety of industries. In the process of ferreting out our recent, collective history, I've met a wonderful and far-flung community of people. That small group from 2002 has grown into over 350 people with a common interest in how social sciences and ethnographic methods can make a difference in the world of business. My understanding of anthropology – and my life in general – is infinitely richer as a result of the friendships and learning I've gained through building and engaging in that forum.

Mary has been my supervisor at work for more than three years. She has had an uncanny ability to land on her feet in the midst of the most volatile organizational upheavals, and I am most grateful for this skill, as it has allowed me to remain gainfully employed (and at my research site) for the duration of this study. She has also been an incredibly supportive, engaged, and demanding boss. She has done everything in her power to accelerate my career growth, patiently listened to my anthropological ravings about our work, and set a very high bar for my professional achievements. Through our work together I have developed a richer, more nuanced understanding of the corporate setting and how each employee can contribute to making it better.

My colleagues at TechSoft – my ‘specimens’ as some like to call themselves – have contributed to this in a wide variety of ways, and there are just too many individuals to thank them all here. Without their humor, unique perspectives, and sanity checks, this research would simply not have been possible. In order to complete this work, I took advantage of people’s interest in processing their own experiences of their work and corporate dynamics. At the same time, I have been fueled by their fascination with my work and the anthropological endeavor. Their curiosity has reinforced for me the incredible value and perspective anthropology can bring to the world of business.

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Natalie Hanson
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Through consumption we are urged to shape our lives by the use of our purchasing power ... to make sense of our existence by exercising our freedom to choose in a market in which one simultaneously purchases products and services, and assembles, manages, and markets oneself.

... The worker is an individual in search of meaning, responsibility, and a sense of personal achievement, a maximized 'quality of life', and hence of work. Thus the individual is not to be emancipated *from* work, perceived as merely a task or a means to an end, but to be fulfilled *in* work, now construed as an activity through which we produce, discover, and experience our selves.

Governing the Soul: Shaping of the Private Self
Nikolas Rose (1989:103-4)

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CHAPTER 1 INTRODUCTION

Statement of the Problem

Giddens (1990) has argued that the disjuncture of time and space is at the heart of modernity, and that this requires us to think about social systems in new ways. He believes the separation creates the conditions for rationalization and results in the 'disembedding' of both people and institutions; social interactions are no longer bounded by a physical place, but instead transpire in new ways across time and space. In the present day, this dislocation is furthered by symbolic tokens such as money (1990:22-27), and by new computing and communications technologies. As social scientists, if we are not cognizant of these changes, we risk framing our analysis around concepts that are no longer meaningful.¹ Both labor and, more broadly, economic exchange have been altered by the disembedding that Giddens describes. In earlier times, labor was a "constant measure between the values of things" (Foucault 1970:253), and markets were situated in local, public spaces (Zukin 1991). Now the entire cycle of production and circulation is assessed for its value, with labor costs as only one piece of the equation (Foucault 1970:253-58). Thus worth is no longer associated with a laboring individual, but rather with the efficiency of a system of

¹ For example, in his book *Imagined Communities*, Anderson (1983), seeks to explain the emergence of nationalism. Because the idea of nation forms an integral part of everyday lived experience, it is difficult for us to conceptualize the nation-state as a "relatively recent, historically contingent form of organizing space in the world" (Gupta 2003:321). In other words, the concept of nation may no longer define a valid area of study. Giddens argues that our understanding of society is conflated with nation-state (1990:12-13), further dismantling familiar frameworks of analysis.

production. At the same time, with the rise of entrepreneurialism, labor practices shifted from home work to shop work and back again. And so over time, “market no longer internalized place,” but rather “place began to internalize market culture” (Zukin 1991).

In this changing context, corporations continue to be a major force in driving global relations of power. In many ways, corporations are the quintessential institution of modernity; they work across national boundaries as a matter of course, and in an effort to remain competitive they have a voracious appetite for technologies² that promise to increase their efficiency. At the same time, through their participation in the free market system they drive consumerism, perpetuate gross inequities, and ensure a totalizing control of employees that extends well beyond the walls of any headquarters building. Thus, an anthropological study of the corporate form today must consider the ways in which corporations attempt to proliferate in the world system, in relation to both the market and their employees.

There have been substantial changes in corporations since World War II, including a renewed focus on improving the practices of production.

Anthropologists have been working in corporations since the 1920s, and were witness to these changes. But a theoretical grounding in structural-functionalism

² This study will examine the breadth of technologies in use at one high tech company to manage employees to the desired ends. As it is used here, the definition of technologies includes the domains outlined by Foucault (1988), which be discussed at greater length in an upcoming section. The use of the word ‘technology’ may result in some confusion because I will also talk about software, which is a very specific kind of technology. Whenever possible I will use an adjective to distinguish the two (e.g. ‘computing technology’ rather than simply ‘technology’) to make those distinctions.

led them to focus on equilibrium within teams, and between workers and management. Over time, corporate management shifted their focus from the optimization of internal practices of production (through technologies like Henry Ford's assembly line and Taylor's scientific management) to the relationship between internal order and the market. Anthropologists largely failed to recognize this; we are therefore dependent on perspectives from other social sciences to make meaning of the changes that transpired during this period. Critical theorists Knights and Morgan (1991:257-58) call our attention to three trends which resulted in an increased awareness of and response to the market. The first was "the institutional separation of ownership from direct managerial control," which in turns required management to articulate its objectives and practices to an external audience. Secondly, after World War II the U.S. played a growing role in the global economy, and corporate management was required to articulate plans for success under increasingly diverse and complex competitive conditions. Finally, new forms of corporate organization were required to contend with dispersed work units; over time even corporate divisions were established as operationally independent silos, capable of responding directly to market trends.

In the 1960s and 70s, United States investments in foreign countries increased as it and other economically dominant countries sought cheap labor overseas (Nash 1979:423, Nash 1995). As U.S. financial interests spread around the globe, so too did anthropologists, and they were encouraged to study

developing countries that were being affected by U.S. corporations (Baba 1986:7). Anthropologists thus followed the patterns of corporate growth, and sought to better understand the influence of U.S.-based transnational corporations on the rest of the world. After a backlash against practicing anthropologists during the 1970s, in the late 1980s and early 1990s anthropologists again returned to work in corporations (Baba 1994). Rather than looking at the impact abroad, however, this more recent work addresses the impact of corporations on United States employees and society. Ethnographic work being done now (Barley & Orr 1997, Besser 1996, Downey 1992, Downey 1998, Dubinkas 1988, English-Lueck 2002, Frenkel *et al* 1999, Garsten 1994, Gluesing 1995, Gusterson 1996, Hamada 1994, Kunda 1992, Kusunoki *et al* 1998, Lan 2001, Smith & Kollock 1999, Suchman 1983, Suchman 1999a, Traweek 1988), including my own, expands on work of years past by considering the global and the local, unequal relations of power, and human agency. These recent developments in the anthropology of work will be explored at greater length later in the chapter.

In an essay on world systems theory, Wallerstein (1979) described unequal relations of power between an economic core of nation-states and peripheral states that are exploited by the core for their various resources. Critics of world systems theory argue that it focuses on economic exchange at the nation-state level, rather than on the details of production and labor processes (Blim 1992), and that it ignores the potential influence of human agency (Blim

1992, Smith 1984). As used by anthropologists, world systems theory extends beyond pure economics to analyze “capitalism as a social and cultural phenomenon as much as an economic one, as a process that can be and is affected by class struggle and human agency all along” (Smith 1984:225). More recently, the concept of core and periphery has been used to describe the social and economic relations between a parent company and its subsidiaries in a transnational corporation, for example Garsten (1994).

Understanding unequal power relations on a global scale has been central to the work of anthropology, but our new understanding of social systems as radically fragmented also requires a changed understanding of what constitutes core and periphery. For example, Nash (1979:424-26) expressed concern that transnational corporations are not responsible to a local labor force or market, and that their centralized control both reinforces inequities and discourages a national response. She goes on to say that “the effect on labor has been particularly marked since the mid-sixties when there was a shift from investment in capital-intensive industries supplying overseas markets to labor-intensive industries in low-wage countries” (1979:430). As the global system and corporations evolve, anthropologists have the opportunity to assess the impact and significance of these changes.

For example, the U.S. economy is driven less by manufacturing now than ever before. The increase in service work means that knowledge workers comprise a growing portion of the workforce; we can expect these changes to

impact the global labor market as well. Daniel Bell (1973:14-33) described the transition to what he called 'the post-industrial society,' characterized by (1) the shift from a manufacturing to a services economy, (2) the rapid growth of white-collar and technical workers, (3) the growing importance of theoretical knowledge, (4) a future-focused, technologically-oriented tendency, and finally (5) use of growing technical and theoretical knowledge to make abstract, intellectual decisions about the future. What we call this new era may be open to debate, but it is clear that computing and communication technologies have a critical role in these changes.

As corporations become increasingly globalized, computing technologies have proliferated (Greenbaum 1995:52); high-speed networks have allowed employees to work from different cities and even from different continents. But technologies have served other purposes as well. Management of remote, non-manual labor is a challenge since the physical body is not present to be managed. Since employee costs are the largest expense for corporations, this diaspora is not without risk. Under these conditions, new forms of discipline (many enacted through computing technologies) have emerged to ensure that employees remain subject to corporate demands. A growing trend towards self-management further ensures that remote employees will remain compliant through the internalization of corporate objectives. Thus the shift from co-located laboring bodies to a dispersed network of laboring minds has resulted in new

conditions of work that provide a rich (though sometimes virtual) landscape for study by anthropologists.

Research Questions and Objective

In his 1970 book *The Order of Things*, Foucault described fundamental shifts that modernity (through science) has wrought in our understanding of life, labor, and language. Escobar (1994) has urged anthropologists to assess the impact of science and technology using this same framework. But in more recent work, Foucault further refined his understanding of power, and came to include a fourth domain that he called ‘the self.’ It is these four domains working in concert that I will argue shape both the discourse and practical reality of the corporation today. As such, I believe the essay in which Foucault articulated these domains is worth quoting at length:

We must understand that there are four major types of these “technologies,” each a matrix of practical reason: (1) technologies of production, which permit us to produce, transform, or manipulate things; (2) technologies of sign systems, which permit us to use signs, meanings, symbols, or signification; (3) technologies of power, which determine the conduct of individuals and submit them to certain ends of domination, an objectivising of the subject; (4) technologies of the self, which permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality. (1988b:18)

In the context of changes in the global system described previously, this dissertation is concerned with how and why and by whom these technologies are enacted in the corporate context today.

Computing technologies are one of many *labor or production technologies* in use in the corporate setting today. Deeply embedded in daily work practice, these systems are socially constructed and dynamic. This dissertation explores how computing technologies are shaping the lives of corporate employees today, and in particular how these systems evolve in relation to their social context. Because these socio-technical systems are represented by a device that does not appear to change (like a personal computer), we become increasingly inured to their changing nature and the power they wield. It thus becomes ever more critical to make explicit the role of these technologies in shaping the lives of corporate employees.

Language or sign systems are part of everyday life, and in this research context, communication to dispersed groups is frequently computer-mediated, so communication practices could be considered a socio-technical system in their own right. This dissertation explores communication in the corporate context and when, by whom, and for what purpose communication takes place. Given the decreased frequency of face-to-face communication in a globally dispersed workforce, this dissertation also questions under what conditions communication is conducted in person. Finally, corporate discourse is grounded in language and is integral to the production and reproduction of power relations in the corporate

context. In this dissertation, industry and corporate discourse will be explored as vehicles for the constitution of subjects.

Foucault argued that *technologies of power* determine conduct (1988b:18). At his own admission, much of his early work was concerned with control or subjectification of the physical body. However, Stone (1994:113) has argued that “virtual community originates in, and must return to, the physical.” So in spite of the fact that work in corporate settings is often conducted virtually, the physical world remains an important subject of study. This dissertation explores the significance of the corporation’s physical space, the meanings that are associated with it, and why. It also explores the ways in which technologies are used to manage the remote employee, and if mechanisms of control change as distance from the core increases. But there are also many other, non-physical technologies of power in corporations today. So this dissertation further explores how bureaucratic mechanisms of control – from organizational structure to financial measures - have evolved in response to global socio-economic and political conditions that corporations are experiencing today.

Finally, at the heart of this dissertation are the ways in which *technologies of the self* in use in corporations today continue to evolve into more totalizing mechanisms of control. In other works, Foucault (1982) described the ‘capillary’ nature of power, which suggests its omnipresence. He thus “advocated an ascending analysis of power relations, beginning with the local points of its exercise” (Covaleski *et al* 1998:299). In a disembodied work environment,

perhaps the only constant, local point of exercise is the individual, which clearly creates conditions for the intensification of technologies of the self. These technologies ensure that the institution shapes the lives of employees well beyond the apparent boundaries of the corporation (Grey 1994). As remote knowledge work becomes a global reality, this topic assumes a growing urgency, and will be a central focus of this dissertation.

Research Site

In order to understand these technologies as instruments of governmentality, we must be clear about the larger economic, political, and social conditions from which they emerge (Rose 1989:61-62). The following sections describe both global and U.S. trends that are integral to U.S. high tech workers' understandings of themselves and the corporations in which they work. To that end, this section explores how technological dominance has been a cornerstone of U.S. national identity, economics, and politics; it also looks at how the flood of mass media attention on the high tech industry impacted the U.S. popular imaginary in the 1990s. Finally, this section assesses how U.S. immigration policy has evolved in response to fluctuating demand in the high tech labor market, and questions how these ongoing developments may impact the U.S. high tech industry and workforce in years to come.

Technology and U.S. National Identity

Social scientists have described the role of science and technology in the formation of the United States and U.S. national identity as we know it today; many of these studies trace this trend beginning with the atom bomb and the resulting dominance of the U.S. in both global politics and in the global economy (Harvey 1989:133, Hughes 1998:3) after World War II. However, some studies describe the central role of technology as early as the 1800s, showing that

The machine, conceptualized as a helpful mediator between nature and society, was generally accepted as one of the main contributors to progress, which in the American context came to mean the conquest of the continent, the exploration of the frontier, and the taming of the wide open spaces and natives peoples of the American West. (Jamison 1998:71)

So it is critical to remain cognizant that technological inventiveness and national identity have been interwoven strands of our history since the North American continent was first discovered and colonized. However, the discourse of U.S. technical prowess became much more competitive and international in nature after World War II. For example, in the 1950s the Soviet Union launched Sputnik into space while the U.S. was still developing its first satellite. The embarrassment in not being first resulted in an acceleration of the U.S. space research program and the creation of NASA.

In the corporate world, by the late 1970s, management theorists were recommending decentralization in part because economies of scale were not realized, and new technologies were sought that could support smaller, more

nimble organizations (Greenbaum 1995:67). These were attempts to replicate the success of decentralized Japanese production, and years later when the 1980s brought economic struggle to the United States, a “story of national liberation” against Japan developed, with United States engineers as the protagonists (Downey 1998:7-8). Through a brief analysis of these eras, it is quite clear that technology is understood as a major driver of U.S. economic growth. As a result, any vestige of Romantic concerns for the social implications of technology are largely obscured by nationalist agendas; in the U.S. popular imaginary, the value of technology is not easily subject to question.

But unlike Sputnik, the concerns about the high tech industry today are not about whether the U.S. is first with an invention or to conquer a new frontier; they are long-term concerns about the future of both the industry and the U.S. economy. As labor markets become increasingly global and shift in new ways, U.S. legislation impacts sectors and workers both in the U.S. and abroad. Americans and their political representatives are questioning whether we are giving too much away by offering work to other countries through visas and outsourcing.

The reality is that the economic success of the dot-com era had a nationalist fervor, and the economic downturn of the current period does as well. On one hand there is recognition that we have shifted from farming to mercantilism to manufacturing to service work, and the U.S. has made those transitions and is still globally dominant in many respects. But it is not apparent

what will come after the service economy, and so there is fear about giving knowledge work away when it is unclear what will replace it and keep Americans employed. Fear of unemployment is very personal and at the same time of national concern, and this only becomes more true as understandings of self become increasingly interwoven with our identity as workers. In the case of the U.S. high tech, this conflation results in part from the fact that the industry is integral to our international dominance, both politically and economically. Miller and Rose (1995:458-59) talk about “economic citizenship,” and the idea that workers have come to understand themselves as integral to improving the country’s international competitiveness. In other words, it’s not just about economics, but about the discourse of U.S. democracy itself.

From End-User to Customer

In the early years of computing technology, mainframes were used to track census data and manage other large-scale information projects, primarily for the government.³ But once the new generation of hardware became sophisticated, stable, and affordable enough to be widely used, computing technology became available to a much wider (and often less technologically-savvy) audience. And so, the industry focus on software intensified. By the late

³ The industry was also accelerated by government funding for research. Under the direction of Licklider in the late 1960s, Advanced Research Projects Agency (ARPA, later DARPA with a D for Defense) stimulated the growth of the high tech industry by funding research in computing (Hiltzik 1999:13). ARPAnet – which later evolved into the Internet as we know it today - emerged during this period. Beginning in the 1970s the privatization of research at corporations like Xerox’s Palo Alto Research Center (PARC) propelled the industry forward at an even more rapid rate.

1970s, the Graphical User Interface (GUI, pronounced *gooey*) had been developed at Xerox PARC (Hiltzik 1999), and was being used on the growing number of personal and business machines. This in turn paved the way for a growing use of personal computers (PCs).

In recent years, use of personal computers in U.S. homes has become significantly more common. Several years ago, the Commerce Department announced that the United States now has an information-age economy, as determined by a new industry classification system. The measures of this new age include the fact that more email than "snail mail" was sent in 1997, and that U.S. consumers bought more computers than automobiles (Belton 1999). Thus, despite concerns about the Digital Divide, the Internet has become familiar territory for many Americans, for everything from researching grade-school homework assignments to conducting business-to-business transactions. As a result of the growing ubiquity of both computer and communications technologies, users have also fueled demand for improved technology in homes and in the corporate setting.

Over time, concerns about the user have fused with corporate concerns about the market, and high tech industry discourse has evolved accordingly, shifting from an engineering orientation on the end-user to a growing industry focus on the customer. A free market system serves in part to constitute people as individual consumers (Martin 1997, Rose 1999, Suchman & Bishop 2000b:66). In fact, Zukin (1991:4) contends that with a shift to a services

economy, “workers are important because they consume, not because they produce.” Hacking (1985:81) has shown that as “new modes of description come into being, new possibilities for action come into being as a consequence.” Thus it is not surprising to see a proliferation of popular press literature helping to explain the ways in which economic success of high tech companies is inextricably linked to technology that meets the needs of customers. Even as the dot-com boom became the dot-com bust, books like *The Customer Revolution* (Seybold 2001), *The Unfinished Revolution: Human-Centered Computers and What They Can Do for Us* (Dertouzos 2001), *Customers Rule! Why the E-Commerce Honeymoon is Over and where Winning Businesses Go From Here* (Blackwell & Stephan 2001) and *The Inmates are Running the Asylum: Why High-Tech Products Drive Us Crazy and How to Restore the Sanity* (Cooper 1999) attempted to provide the perfect remedy for decreasing technology sales and the economic downturn in the new millennium.

Interestingly, the need to focus on demonstrating value to customers seems to have only been further reaffirmed as more and more unsuccessful dot-coms and e-business ventures have failed. In fact, the raging success of high tech in the 1990s seems only to have perpetuated this tendency; the urgency of the new and a heightened focus on the customer suggest that the right device or the right marketing ploy is just within reach. And so the corporate discourse of market relations that began after World War II has become intensely focused on

the consumer, bringing with it new marketing practices and a re-focused discourse internal to the corporation as well.

The Changing Labor Market in U.S. High Tech

In the U.S., the 1980s and 90s saw a growing demand for high tech workers, which in turn resulted in changes to Human Resources practices and to U.S. immigration programs. At the same time, there was ongoing dialogue in the industry about contract work, unionization, and shifts in the global labor market. The banking and health care industries were undergoing rapid changes in the 1990s at the same time that the high tech industry was fueling U.S. economic growth. But banking and health care institutions did not develop the same Human Resources (HR) strategies (Hybels & Barley 1990) as high tech corporations did. New forms of governance emerge hand-in-hand with new economic conditions (Martin 1997), so the question is “what organizational dilemmas do they mediate?” (Hybels & Barley 1990:201).

During the 1980s and 90s, the shortage of qualified high tech workers was well documented in the popular press. United States citizens with adequate training (even those with minimal experience) were able to land exceptionally high-paying jobs. In order for recruiters to be successful, they had to provide job candidates with “realistic previews of jobs that are challenging, that provide autonomy in the context of team collaboration, real responsibility and control over some meaningful aspect of the work...” (Cascio 1990:183). Contrary to popular belief, base salaries at high tech companies are not highly inflated (Balkin &

Gomez-Mejia 1985). Rather, the emphasis is on a total compensation package that includes stock options and profit-sharing (Gomez-Mejia & Balkin 1989). These types of programs can be lucrative, but in order to realize the gains, employees are often required to stay with the company for an extended period of time; for example, profits earned one year might be paid out a year or two later, and continuous employment is a criterion for payout. Thus, while the total compensation offering may ultimately result in economic gain, it also serves to focus the employee on the corporate objectives, while at the same time limiting the cost of base salaries and related benefits for the corporation (Cascio 1990:185).

There are assumptions in the high tech industry that greater freedom leads to greater creativity; these are fueled in part by ideas about innovation in management literature and in the popular press. Since the 1980s, engineers have been in short supply and freedom was what they wanted (Beyer 1990, Cascio 1990, Zahrlly 1990). Changes in corporate practices have been made to accommodate those demands. For example, Research and Development (R&D) units of large corporations are sometimes established as a separate entity (within or even external to the corporation) to ensure that typical corporate requirements (like profit margins) can be relaxed to allow the creative space deemed critical for inventors (Beyer 1990:20, Fryxell 1990, Kanter *et al* 1997). In addition, eccentric and even juvenile behavior was tolerated and even encouraged, dress codes were relaxed, and telecommuting became widely accepted. Both the change in

HR practices and the relaxing of other policies were ultimately intended to discourage employee turnover, since there was a growing awareness about the impact of low employee retention on the bottom line (Bretz Jr. & Dreher 1990, Hybels & Barley 1990, Turbin & Rosse 1990).⁴

While demands for individual freedom were being granted in some arenas, this freedom has its costs. For example, there is a larger economic trend across industry sectors that put social responsibility for services such as retirement back on the worker themselves (Suchman & Bishop 2000b:331). As companies reduce or eliminate pension programs, workers have been forced to take responsibility for their retirement income through 401K plans. Self-management by employees is both “personally attractive and economically desirable,” (Du Gay & Salaman 1992:626), and these new mechanisms of control are couched in a language of employee responsibility that gives the appearance of freedom. In fact it is that very freedom that binds employees which is “bought for most at the price of real economic enslavement” (Rose 1999:66); the pressures of consumer society drive employees to consent to corporate practices (Deetz 2003:27) that might otherwise seem unreasonable.

In addition to changing practices for U.S. nationals, some changes were made in U.S. visa programs to encourage immigration of technically qualified workers. The H1B visa grants individuals the right to live and work in the U.S. for

⁴ This type of mobility between organizations is not new, but it is most prevalent during times of economic or industry-specific growth. For example, it was taking place as early as the mid-1800s in the railroad industry. Zunz (1990:4) says that “movements among firms were essential to an evolution of an integrated business hierarchy of managers.”

up to six years, but prior to the 1990s, these visas were largely issued to fill specialized positions in academic institutions. But by the late 1990s, the majority of the nearly 200,000 H1B visas issued annually were to high tech workers from India, Russia, and other countries where tech-savvy, cheap, and mobile workers reside. Nearly half of these immigrants were from India. The influence of the high tech industry on the H1B visa program is further evidenced by Senate approval in April 2000 of an increase in the annual salary cap (from \$115,000 to \$195,000), in response to industry pressures. The Immigration and Naturalization Service (INS) was unable to keep up with the H1B visa applications, and was also unable to keep up with the requests for permanent residency. Further, since the INS limits any given country to 7% of the overall residencies accepted, many Indian workers were unable to remain in the U.S. after the expiration of their visas. This was counter to the original rationale of the H1B visa program, which was intended to establish and grow a larger base of technically sophisticated workers.

It seems that the labor market shortage would favor a unionization effort, and some theorists have argued that steps in this direction are absolutely critical given that the rhetoric about individualism largely serves corporate interests, and that employees are increasingly pitted against each other in a work context that demands collaboration (Greenbaum 1995:142-43). Companies that are both “small and technically complex ... could create social conditions similar to those found in craft technologies” (Beyer 1990:27), and in turn pave the way for

unionization. Anthropologists have studied the dynamics of the workplace and the role of unionization in mediating (or failing to mediate) worker needs (Devinatz 1999, Edelman 2002, Gamst 2002, Greenbaum 1995, 1979, Holzberg & Giovannini 1981:321, Hybels & Barley 1990, Menzies 2002, Nash 1995, Pandian 2002, Sabea 2002, Striffler 2002, Zahrlly 1990), but there is still much to be done to understand what the trend towards dispersed knowledge work has on collective bargaining efforts.

While the conditions for unionization certainly exist on the manufacturing side of high tech both in the U.S. and abroad, it seems that white-collar workers in the high tech industry are unlikely to unionize at this time for a number of reasons. Perhaps most importantly, unionization is often a response to de-skilling, or the “separation of conception and execution” (Burawoy 1979:240). The daily work practice of knowledge workers regularly incorporates a certain degree of autonomy and decision-making, which likely results in a decreased sense of urgency on this topic. In addition, certain forms of knowledge work like psychology and law require formal certification, which in turn facilitates association with an occupational group. But such formal practices do not exist in the high tech arena (Hybels & Barley 1990:205), as basic requirements like national and international curriculum standards for engineering have not been set.⁵ Finally, the performance of commitment through long working hours is

⁵ It is quite likely that the Romantic notions of individual genius have impacted the lack of focus on formal certification of engineering skills, as there is a feeling in the industry that true creative genius cannot be codified and taught.

integral to the acquisition of social capital in high tech culture, and not something that could be easily mitigated by unionization. In an economy in which knowledge workers represent a growing portion of the workforce, the risks to and potential for collective bargaining presents an important area for additional study, but one that will not be addressed further in this dissertation.

In recent years, changes in the U.S. economy have clearly impacted new company growth and the ebb and flow of foreign professionals. These changes continue to create shifts in the global labor market. For example, by early 2000 there were a growing number of stories in the press about Indian engineers on an H1B visa who were unable to find work in the U.S. and were forced to return home. The high tech industry found ways around immigration restrictions by increasing the practice of offshore piecework, primarily with workers from India. India already had a growing high tech sector, and in combination with H1B visa-holders returning home, India continues to experience growth in this area. These knowledge workers now have an opportunity to shape their futures and the economy of their country in a way that may well change the global landscape of the high tech industry in years to come. In a very different example, the government of Ireland has established legislation that makes it desirable for transnational corporations to relocate their global technical support services. Combined with a technically literate, English-speaking population, these legislative efforts are bringing substantial income to Ireland. Yet these are also considered some of the lowest-ranking positions in the world of IT, so it is not

clear what this portends for Ireland's place in the global economy of the high tech industry. This will be an interesting trend to watch in the next few years as well.

As the U.S. economy and the job market have contracted in 2002 and 2003, the changes continue. Many theorists claim that the insatiable appetite of capitalism requires innovation, as competition and market saturation decrease the profit margin on older products. This dismantling of the old and constant need for the new was described by Schumpeter (1975), as the process of *creative destruction*. He argued that this was the "fundamental impulse that sets and keeps the capitalist engine in motion," and that we typically concern ourselves with "how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them" (Schumpeter 1975:83-84). More recently, these ideas have been revisited in the popular press management literature by Christensen (1997), who has argued that companies have to break from their sustainable business models and seek ways to develop disruptive technologies if they are to remain competitive. One scholar notes that in the early 1960s there were about 400 publications on how innovations diffuse, but that by 1995 that number had reached nearly 4000 (Rogers 1995:xv). Today, the drive for "new consumers, goods, the new methods of production, the new markets, the new forms of industrial organization" (Schumpeter 1975:82) remains an ongoing focus in the U.S. high tech industry.

Despite the recent economic downturn, there remains an underlying belief that technology is the answer, and that the next new thing will rally the high tech

industry and even the U.S. economy as it did in the 1990s. Unemployment in the U.S. has been high, and there has been a backlash against international workers as evidenced by sites like <http://www.hb1visasucks.com>, which is attempting to collect signatures to eliminate the H1B visa program completely. At the end of 2003, the number of H1B visas issued annually has been dropped back to its pre-dot-com era level. Venture capital for new technology companies has dried up, and corporate R&D units are being managed to timelines and budgets in a way that would have been unthinkable ten years ago. Major corporations have been forced to evaluate employee compensation plans, as profit margins have decreased and payouts are no longer as lucrative for employees as they had been in the past. These challenges are compounded by changes in U.S. regulations that will likely require businesses to deduct estimated costs for stock options to employees. At the same time, much of the U.S. high tech workforce is still foreign, and seventy-five percent or more of engineering students at some universities are international students, such that corporations are sponsoring international students to ensure a steady flow of qualified employees (Cascio 1990:181). As technical skills and markets continue to grow in India, Russia, Israel, and more recently China, it is not clear whether the U.S. can maintain its dominant position as a producer (and not simply a consumer) of new technology, and what this most recent cycle of creative destruction portends for U.S. employees working in the high tech corporation today.

Today, the widely discussed public concerns about job markets and outsourcing are largely economic, and the socio-cultural dimension of these shifts remains largely unexplored. For example, not unlike the U.S., Japanese firms are experiencing a shortage of qualified engineers, and as a result they are outsourcing engineering projects. A recent study demonstrated that Japanese firms prefer outsourcing to India because the programmers are believed to be more capable (Walsham 2004). However, ongoing challenges exist in this outsourcing relationship because of significant cultural differences, and because there is no shared language; the Japanese do not speak English well enough to document product specifications, and for the most part Indians do not speak Japanese. For these reasons and others, the Japanese would prefer to outsource to China, so it is expected that outsourcing from Japan to India will likely decrease as the capabilities of Chinese engineers improve (Walsham 2004). Thus, while socio-cultural considerations are secondary today, they will play an important role in Japan's outsourcing decisions in the years to come.

This dissertation begins to explore both the economic and socio-cultural implications of these global trends for U.S. high tech workers. In the global labor market, U.S. employees are perceived as expensive to compensate on one hand and easy to hire-and-fire on the other. Fear of job loss thus naturally remains a central focus of the U.S. discourse on globalization of job markets. In the high tech sector, Americans are largely unused to having their interests subordinated to those of other countries. With the shift in power relations, tensions are

personalized and directed at the remaining visa-holders in the U.S., as well as at those foreigners who are claiming the outsourced work. The social aspect of these economic changes presents a rich opportunity for ongoing study by anthropologists.

Linus Torvalds and the American Dream

Individuals participate in the free market system not just as consumers of goods and services, but also of their own careers. High tech work consumes the worker with the long hours and personal commitment the industry demands; the hope is that individual career success is produced in these efforts. This tendency has been further reinforced by high tech industry trends that have focused employees on their own careers and occupations, rather than an alliance with a workgroup or corporation (Beyer 1990, Hybels & Barley 1990). Not surprisingly, then, the drive for the new is also closely linked to notions of individualism in the capitalist system:

The quest for the new put extraordinary emphasis on the role of the individual. A single person, properly placed, could change the destiny of a nation; a single idea could create a new product or industry or a new artistic form ... Emancipated from tradition, society was now dependent on genius; and genius, wayward and unpredictable, was to be found only in the individual. (Greaves *et al* 1990:729)

The media fascination with Linus Torvalds provides a means to explore ideas of innovation, individual genius, and success. What is perhaps most interesting for the purposes of this dissertation is that, in the press, the individual achievements

of Torvalds and the rapid growth of Linux are depicted largely in opposition to corporate interests, but integration of Linux into corporate America is still the measure of its success.

In the early 1990s, Torvalds was a computer science student in Finland when he created an operating system modeled after a commercially available system called Unix. He put the basic structure in place, placed a GNU General Public License on it, and made it available publicly on the Internet. The resulting operating system, now widely known as Linux, is free and it can be modified or improved by anyone with the interest and the skill. In an essay about sharing information online, Kollock (1999) theorizes about sharing information online and ties these ideas to anthropological notions of gift-giving. He says that any piece of information posted to a public forum becomes a public good, thus through an act of communication, one person can have as great an impact as a large organized group. Motivations for such an act might be to get something in return, to improve one's reputation, to improve the context, or because someone might need it. With virtually no cost of distribution, the likelihood of sharing information increases. In the case of Linux, programmers are motivated to contribute good changes because of the social capital they earn if their changes are incorporated into the standard for the benefit of all. Sharing information in the online context thus becomes a new way of producing and reproducing (and perhaps even altering) power relations.

Although it does not supplant all the products delivered by Microsoft, Linux has been hailed as a contrast to the seemingly ever-growing power of high tech corporations of that stature. Linux (personified in Linus Torvalds) has been hailed with near-religious fervor as the nemesis of Microsoft, “Linus’s round, bespectacled countenance became a favored dartboard target within Microsoft Corporation, which was now faced with its first, honest-to-goodness competitive threat” (Torvalds & Diamond 2001:ix). But the imagined possibilities were even larger, including impacting big business control over technology, as evidenced by sweeping statements in the popular press like “smaller companies are leveraging open-source software to triumph over corporate giants” (Von Hippel 2001).

Linux has been described as a social movement, and the “overall gestalt ... is evangelical” (Chapman 1998). Torvalds (2001) has made clear that the open source movement existed long before he first made Linux available for download in 1991, and that in fact the growth of Linux today would not have been possible without the work of many other people.⁶ He has nonetheless come to personify the open source movement in the popular imagination. Linus himself has been described as a luminary, and those who do not believe strongly for or against the open source movement are self-described agnostics. Torvalds’ autobiography entitled *Just for Fun: The Story of an Accidental Revolutionary* is in some sense the creation myth for Linux. Because he worked from a small

⁶ For example the General Public License (GPL) was created by Richard Stallman. The GPL allows for the sale of software like Linux, but only under the condition that the source is made available by the seller to the buyer.

bedroom in his mother's house in Finland, the story has unique qualities, but in other ways, it is very much like the stories of other huge high tech companies today; Apple, Hewlett-Packard, and Microsoft all have 'we started as two [or three] men in a garage' creation myths. The reality is that the majority of new product innovation is driven by the Research and Development teams of large corporations:

Indeed, contrary to popular stories, saleable new technology is rarely developed in people's garages and basements. Instead, it is the result of long periods of research and development and almost always comes from, or is ordered by, large companies.
(Greenbaum 1995:56)

More than ten years after Linus' first upload, the open source movement had been largely conflated with Linux, and some question whether the momentum is held together by antipathy to Microsoft (Gillmor 2001) and the big business stranglehold on the high tech industry. It has been very interesting to watch the play of one against the other in the popular press, to see how we try to make meaning of Linux in the context of an industry controlled by some of the largest and most powerful multi-national corporations in the world.

In 2000 alone, Linux experienced growth of 16%, increasing its market share to 24% (relative to Microsoft's 41%) of the business operating system market (Associated Press 2000). As Linux has grown in popularity and market share, and as it becomes further integrated into corporate America, it is interesting to note that it has not been vilified. Consider in contrast this summary

of new items about Microsoft, which appeared in the press between 1999 to 2001:

- An announcement was made that a change in to Microsoft's licensing agreements would require a full re-purchase of the license for non-current versions; this resulted in a flood of users to Linux, especially in academia, and there were class-action lawsuits against Microsoft for using their monopoly to overcharge consumers. The final outcome of the years of legal wrangling was that Microsoft was not forced to split the company, but they were found to be engaging in anti-competitive behaviors (Phillips 2001). This has resulted in ongoing scrutiny of their practices, as with the recent release of XP (Lohr 2001), which raised legal questions because in an effort to combat software piracy, it forces consumers to re-register the product with each change in system hardware.
- Microsoft publicly stated their opposition to and concerns with the General Public License (GPL) on which Linux is based. The reasons were primarily financial: "because the GPL is applied to any new, modified software that is developed, it 'infects' formerly proprietary technology, eliminating the economic value of such intellectual property" (MacCrisken 2001). Microsoft led the charge to educate consumers and government officials about financial impact of the GPL on software companies, arguing that continued use of the licensing scheme could impact their ability (and the ability of other commercial software companies) to innovate. At the

same time, in an effort to combat negative press and take advantage of the collaborative benefits of joint review of code, Microsoft developed a 'shared-source' program (Wilcox & Shankland 2001), though since the acceptance of any code changes was at the final discretion of Microsoft, the program was largely met with derision from open source proponents.

- Microsoft was portrayed as using its financial clout to influence legislative decisions to the advantage of large high tech corporations. The company hired a lobbyist to focus on governor George W. Bush should he become president (Brinkley 2000). Microsoft also made big donations to select election campaigns, urging politicians to balance the freedom to innovate with the need for a competitive marketplace (Phillips 2001) – in other words, challenging the GPL on the grounds that it threatened Microsoft's ability to innovate.
- Microsoft created a special team to monitor Linux and combat Microsoft's decreased popularity in the press. The team ran and published some performance tests of Microsoft NT versus Linux, but were publicly pressured to re-run the study because they had optimized NT for the testing (Wall Street Journal 1999). The fact that NT's performance was better in both cases appeared to be of less interest to the press than the fact that (1) Microsoft had developed a special team to monitor Linux, and (2) that Microsoft had designed the tests to their advantage.

- During the same period, Microsoft settled an eight year lawsuit brought against them by temporary workers, and they were forced to pay out \$96.9 million in back benefits (Schafer & Joyce 2000), which amounted to \$70 million in funds to over ten thousand long-term temporary workers.

By 2001, Linux was getting endorsements from major high tech companies like IBM (Connor 2001, Riley 2001), who perhaps thought that open source software would continue to drive hardware sales despite the slump across the industry. The market share for Linux was forecasted to triple in 2002 (Lyman 2001), and despite the fact that there was little interest in Linux for home computer use (Vance 2001), Linux was quietly getting infused into consumer electronics, because no software license was required by the manufacturer (Pastore 2001). The open source movement has been focused on paving its way in the corporate world, and defining a sustainable partnership strategy with major corporations. In 2001, Internet law expert Lawrence Lessig warned attendees of LinuxWorld that the Digital Millennium Copyright Act of 1998 limits innovation, because it reinforces big corporate interests; Lessig encouraged his audience to get actively involved in government decisions on these topics (Shankland 2001). The ability of the open source movement(s) to negotiate the complex playing field of government and big business will be an interesting trend to watch in years to come.

What is particularly interesting about these developments is the fact that, as Linux gets absorbed further and further into the mainstream, there is no

backlash against its corporatization. I would argue that Linux is considered a success and not a sell out because it reinforces the achievement of the American Dream, personalized in Linus. Americans seem to be particularly susceptible to myths that glorify the Dream achieved through technology; the story of Linus Torvalds and of Linux is about the triumph of the individual success rather than victory over a particular opponent. As he's made his way from his dark little bedroom in Finland to a BMW Z3 on the highways of California, Linus Torvalds epitomizes just that. He is a virtual cowboy on the high tech frontier, and he has reclaimed the spirit of engineering that has been lost in the world of big business by creating a liminal yet powerful space for collaborative, inventive teamwork that transcends the rapacious demands of any one corporation. But, it is nonetheless important to remember that his success - and the success of Linux - is still very much dependent on partnerships with and absorption into mainstream corporate America.

TechSoft⁷

This dissertation will describe and analyze activities at the U.S. offices of TechSoft, a transnational company with global headquarters in Europe. TechSoft develops, sells, and services software that supports the operations and management of large, complex corporations. The United States headquarters for TechSoft was established in the late 1980s to provide sales and marketing

⁷ This name is fictitious. In order to protect the privacy of the company and its employees, other descriptive details have also been removed or altered.

support for the region, that is, for all of North and South America. The U.S. has been charged with driving an increase in worldwide software sales by targeting prospective customers in the United States, and closing the gap between TechSoft and its U.S.-based closest competitors.

TechSoft's first few years in the United States were enormously successful and spurred the expansion of North American offices, a new U.S. headquarters building, and the growth of the corporation as a whole. In addition, prior to the year 2000 (Y2K), concerns with transitioning non-compliant 'legacy' systems created a boom in the business software market. Along with many other high technology companies, by the late 1990s, TechSoft's stock had reached its all time peak. Through the mid-1990s the global headquarters in Europe gave the U.S. management team freedom to shape the local organizational structure and penetrate the market in the way regional management deemed most effective, but still aligned with global strategies. The growth of global and local organizations has been accompanied by a degree of tension. During the period of my research (1998-2002), a number of factors began to take their toll on TechSoft. Ongoing attempts to evaluate operations in the United States demonstrate that both global and local management teams struggled; the division of labor between global and local was not as clear as it would seem, and has been a locus of deliberation in recent years. In addition, the company has struggled to develop a global strategy (and accompanying corporate discourse) in relation to the changing demands of the market. My research thus takes place

during a particularly difficult period in the company's history, and concludes in early 2002 when the U.S. economy had reached a substantial low, in part due to terrorist activities in the United States in September 2001.

Relevance and Contributions

This dissertation brings the strengths of Anthropology together with complementary disciplines of Science, Technology, and Society (STS) studies, sociolinguistics, and the literature on governmentality. The combination offers a strong ethnographic tradition, well grounded in an understanding of global politics, economics, and social trends, while at the same time providing tools for an analysis of local power relations. STS and the governmentality literature provide further insights into the role of technologies in shaping the lived experiences of workers in the corporate context. While each theoretical area is well-developed in its own right, the convergence opens up new possibilities for exploration, and advances understanding in all four areas of study.

Anthropology of Work

This dissertation builds on the industrial ethnography tradition of the 1940s. However, it fuses that legacy with more recent understanding of the world system and power relations to ensure that the industry in global context, the corporation in industry context, the U.S. subsidiary in relation to its global parent, and the relationship of the anthropologist to the site of study all remain central considerations throughout the dissertation.

The anthropology of work in American corporations (Baba 1986, Burawoy 1979, Hamada 1998, Holzberg & Giovannini 1981) began in the 1920s during a period when anthropologists relied heavily on functionalism and structural-functionalism as frameworks for analysis. These understandings of culture as structured systems formed an integral part of this early research. The Hawthorne Studies⁸ provided insights on individual employees' experience in the context of the larger workgroup or organization (Baba 1998:19, Nye 1990:363, Reese 2002:19, Rose 1989:73). These were the first efforts to optimize the work context through formal expertise about the psychology of the individual employee. Warner and other anthropologists of this era "placed the burden for change on freely volunteering participants," and in this way perpetuated liberal ideals about society into the workplace (Wolf 1969:256). This approach became known as Human Relations, and it was the precursor to Human Resources departments that exist in corporations today.

Anthropologists engaged in this early research were academics, were not paid by the companies under study, and were primarily interested in the worker's point of view (Baba 1998:20). They also made recommendations for changes to both manager and worker behavior (1998:19). Fischer (1994:175) states that organizational psychology and other fields of study are insular and fail to address "concepts of power, authority, and class." He goes on to argue that those social

⁸ Elton Mayo was a trained psychologist who brought a therapeutic, solutions-oriented perspective to his research at Hawthorne Electric in the 1920s (Baba 1998:18; Burawoy 1979:234). In the early 1930s, Mayo was joined at Hawthorne by anthropologist W. Lloyd Warner, who was interested in using his knowledge to solve business problems in the United States (Baba 1998:17).

scientists working on the Hawthorne studies were co-opted by the management who had requested their help with employees: “[Human Relations Theory] must be perceived as the commodity of a new class vying for position in the evolving world of bureaucratic capitalism.” (1994:193) It is true that Mayo and later theorists failed to look at the broader economic, political, and social context in which these approaches emerged (Burawoy 1979, Holzberg & Giovannini 1981); in particular, they did not adequately address issues of class conflict and structural inequality in their work.

In the 1940s and 1950s, anthropologists produced a number of industrial ethnographies.⁹ These were “case studies of whole industrial cultures found in a single business enterprise or permeating a given industry” (Baba 1986).

Theorists in the anthropology of work today identify full-length ethnographies as an ongoing need for the discipline (Baba 1986, Hamada 1998); this dissertation continues the industrial ethnography tradition. Some have hypothesized that the case study approach has been preferred by industrial or corporate anthropologists because, “being contextual in nature, [it] most closely approximates the holistic, integrative dimensions of anthropological inquiry” (Holzberg & Giovannini 1981). The authors go on to caution that this work runs the risk of remaining narrow in scope and focusing on the equilibrium with the company, much as the Hawthorne Studies did. Thus, literature reviews indicate that such studies would benefit from comparative explorations (Burawoy 1979)

⁹ See Holzberg and Giovanni (1981) and Baba (1986) for a detailed discussion of the work of industrial anthropologists in this period.

and a grounding in the larger industrial and economic context (Holzberg & Giovannini 1981). Comparative work is beyond the scope of this dissertation, but I do identify a deeper understanding of the context external to the corporation as critical to understanding the construction of the worker-as-subject inside the corporation.

At the same time, insufficient work has been done on how different groups within a company make meaning based on their varied cultural backgrounds, work experiences, and understandings of the overall corporate objective (Kleinburg 1994). Thus, some theorists believe that more work is still needed (Bechky 1999) to understand occupational conflicts. This dissertation therefore fills a gap in existing literature because it addresses the relationship between tacit or 'local' knowledge and organizational practices, which has been studied (Greenbaum 1979, Howard & Schneider 1988, Howard & Schneider, Kusterer 1978, Ong 1987, Scribner & Sachs 1991, Zuboff 1988) but at this time is still not well understood (Baba 1990).

While mechanisms of worker control for high tech corporations may be more complex – technologically sophisticated forms of surveillance, incentive plans instead of wage hikes – the objectives and outcomes are still focused on the control of employees to drive productivity and profit. These have been central themes in the anthropology of work literature, but in the past anthropologists failed to adequately analyze the impact of external social, economic, and political trends on corporate practices. Recent research has

begun to fill this gap by demonstrating that workers experience mechanisms of power that are deeply embedded in and created by both global and local forces (Applebaum 1995, Baba 1998, Berg & Kreiner 1990, Braverman 1994, Edwards 1994, Fischer 1994, Frenkel et al 1999, Gamst 1995, Hamada 1998, Harvey 1989, Weber 1994, Zuboff 1988, Zunz 1990). As corporate practices evolve in response to external factors, there is also an ongoing opportunity for anthropologists to assess the impact of these changes on the lived experience of employees. This dissertation undertakes just such a project by providing ethnographic data on the experiences of employees at TechSoft.

Much of the anthropological research being conducted by U.S. scholars today is still focused outside of the United States (Nader 1996, Nash 1989), perhaps because research in the U.S. still carries a stigma (Gupta & Ferguson 1997:13-4). All except the most recent of the U.S. based work (Edelman 2002, Gamst 2002, Striffler 2002) still avoids the complex power dynamics of studying corporations and workplaces at home. Baba (1986:7, 1998:20) refers to the 1960s and 70s as a 'latent period' in the anthropology of work, because the body of theory on corporations that emerged from management scholars and other disciplines during this period did so largely without the involvement of anthropologists. In fact, the majority of research on the corporate context has been done by non-anthropologists, as evidenced by essays like that of Buroway (1979), in which only six of the 127 citations are of work by anthropologists (Holzberg & Giovannini 1981:319). As a result, today there is still much work to

be done to strongly situate practicing anthropologists in their corporate and industrial contexts, to articulate the value of using Anthropology at home, and to better articulate the impact of the ensuing power dynamics on their research. These issues are also examined in this dissertation.

Science, Technology, and Society (STS)

As it is used in this dissertation, the Science, Technology, and Society (STS) literature provides a theoretical framework to talk about popular misconceptions about technology and its impact on society. It also positions TechSoft as an institution of high technology, drawing in particular on the 'lab ethnography' tradition. Finally, the STS literature supports analysis of the socio-technical systems that are integral to management and self-management practices at TechSoft.

In the popular press and in social sciences dialogue, there is an ongoing question as to whether the Internet and computer technologies have propelled us into the midst of a so-called Computer Revolution or Information Age, which will have as far-reaching an impact as the Industrial Revolution did. For example, during the 1990s in the popular press, the conflicting themes appear as the great democratizing potential of the Internet on one hand, and the Digital Divide on the other. Shapiro's (1999) *The Control Revolution: How the Internet is Putting Individuals in Charge and Changing the World We Know*, concludes that the Internet offers the possibility of altering traditional relations of power. He argues that a technical decentralization (from mainframes to a distributed client-server

environment) allows for a broader distribution of power. However, neither the client-server environment nor the increased demand for technical skills in the workplace are, as some would hope, democratizing forces; systems may be distributed broadly but they can still be centrally monitored, managed, and controlled. Other authors in the popular press are less convinced of the positive potential for the Internet and related computing technologies, citing the growing Digital Divide, and fissures along the lines of race (Chapman 1999a, 1999b, Katz 1998, Zipp 1997) and gender (Peltz 1998) or both (Terry 1999).¹⁰ In general, social scientists considering these topics (Compaine 2001, Ezzamel & Willmott 1998, Frenkel 1990, Gunkel 1998, Smith 2001, Taylor *et al* 1993) are skeptical of overstating the democratizing potential of these computer technologies.

In his book *Cyborgs@Cyberspace*, anthropologist David Hakken (1999) questions whether a revolution has occurred at all. Hakken discourages us from infusing computing technologies with mythological potential to effectuate change; computing technologies are social phenomena and must be analyzed as such (Bijker *et al* 1987, Hakken 1993, Hess 1995, Pfaffenberger 1992, Winner 1985). He recognizes some of the changes identified by Bell (1973) but is reticent to prematurely label these a revolution. Castells (1998:346) argues that the identities being constituted in this space are aggregating in social movements which, if successful, could result in another kind of revolution. The perspectives of theorists like Hakken and Castells are the strength of the STS tradition today,

¹⁰ This is not an exhaustive list, as there were many articles on these topics published during the late 1990s.

and form a critical part of my analysis. The STS tradition ensures that understandings of technology are not microcosmic in focus, but rather situated in their broader socio-economic and political context, which is something that the Anthropology of Work has not done well in the past.

As discussed earlier, because of a U.S. technocratic regime after World War II, scientific knowledge was not easily made subject to question; it was thought to be objective and not culture-laden. Thus, early work in STS focused on scientific communities and institutions (Hess 1997), and was somewhat limited in its perspective (Staudenmaier 2001). Kuhn (1970) was among the first to look at the content of science, which had not previously been subject to evaluation. His seminal work *The Nature of Scientific Revolutions* was a deconstruction of scientific epistemologies. Studies that built on Kuhn's work, like Latour and Woolgar's (1986) *Laboratory Life: The Construction of Scientific Facts* were 'lab ethnographies' that described insider activity in scientific labs, and thoroughly situated the lab and its workers in a broader social, political, and economic context.

For example, *Beamtimes and Lifetimes* is written in the lab ethnography tradition. In it, Traweek (1988) offers a line of sight into the world of high-energy physicists. She describes the industry, including high-energy physicists in relation to other types of physicists and the dynamics within and between groups in a particle physics laboratory. She also describes the physical context of that work, including the buildings and grounds, all with the perspective of a female

anthropologist researching a community of male scientists. Because of her work in one of the major labs, she has a participant's view, but her role as an observer allows her to tie micro-level behavior to social and political activities external to the lab. For example, she explains how individuals and the laboratory community as a whole interact with the federal government and its agencies, with funding sources, and with foreign colleagues. This balance of macro and micro, emic and etic perspectives provides a well-rounded view of both the physicists and the context in which they work. In the following pages, I hope to provide the same breadth and depth as I provide a description of the U.S. headquarters campus of TechSoft, while at the same time situating the global corporation and its local practices in their broader socio-economic context. This contextualization is a strength of STS, and, as mentioned earlier, has until recently been missing in the Anthropology of Work literature on corporations.

Institutions of science have been well studied, and there has also been some work done on technology institutions (Bijker *et al* 1987). However, there is still much to be done in this latter area, as understandings of science do not necessarily transfer to the unique practices and bodies of knowledge of technology and its institutions (Staudenmaier 2001, Wacjman 1991). While limitations of time and space in this dissertation will not allow for detailed analysis of TechSoft as a site of software production, my work nonetheless begins to fill this gap in the STS literature by providing an in-depth study of one technology company.

One of my main concerns with STS is that it is very theoretical, and while that distance provides valuable insights, the lack of detailed ethnographic data in much of the STS literature results in a failure to address the messy reality of technology-in-use in U.S. corporations today. One recent exception is Downey's (1992, 1998, 1997, 1995) writings, which describe the world of engineering as he grows increasingly immersed within it. He argues from what he calls the *cyborg anthropology* perspective, that is, we have to understand both the technology and ourselves as products of our relationship to the world around us, rather than allowing either to remain a fixed element of analysis. In addition to explaining engineering in the context of U.S. and global politics, Downey attends undergraduate engineering courses and also collects data on the experiences of the students with whom he is studying. So, while he maintains the contextual perspective that has been a strength of the lab ethnography tradition, because of his experiences 'in the field,' he is also able to provide perspective on the agency people exercise as part of a socio-technical system. The flexibility that this approach provides is critical in the reality of fragmented, disembedded research sites today.

In 1994, Escobar wrote an essay entitled "Welcome to Cyberia". He argued that both computing and bio-technologies (or *cyberculture*) emerge from our social world, and are shaped by the discourses and practices of modernity (Escobar 1994, Hess 1997). It was a seminal piece at the time, as it charted a course for anthropological engagement the study of cyberculture – or STS.

Escobar (1994:217-18) suggests five ethnographic domains where anthropological perspective and methods could bring value. All of the domains proposed by Escobar are addressed to some degree in this dissertation:

- *The effect of STS on the popular imaginary.* This is especially relevant in the U.S. high technology industry, where the drive for technological dominance has a nationalist fervor, and where hopes for individual success in the industry are largely dependent on and at the same time subsumed by the interests of large high tech multinationals.
- *The impact of science and technology on the global political economy.* Escobar suggests that anthropologists are uniquely positioned to explore how flexible, de-centralized labor practices will impact macro-economic and political relations.¹¹ As mentioned earlier in this chapter, an understanding and evaluation of the corporation and its practices is a key component of this dissertation.
- *The production and use of new technologies.* In this dissertation, I am not able to address software production as much as I would have liked because the primary responsibility of TechSoft's U.S. subsidiary is sales and services for software produced elsewhere. However, the regular introduction of new technologies is a reality in the high tech workplace today, and something that will be explored herein.

¹¹ Escobar also mentions the opportunity to explore the impact of these changes on our understandings of race and gender. These areas are beyond the scope of this work but they do present important areas for further study.

This domain includes an exploration of changing ideas of self, which Escobar argues can only be understood using an ethnographic methodology. This area will be outlined in detail in an upcoming section entitled *Worker as Subject*.

- *The growth of computer-mediated communities and the impact on the 'relationship between language, communication, social structures, and cultural identity'*. The role of computer-mediated communication and its role in the formation of corporate discourse will be explored at several points in this dissertation, as outlined in the following two sections.

In summary, Society, Technology, and Society studies is critical for this dissertation in a number of areas. The lab ethnography tradition supplements historical gaps in the Anthropology of Work literature. Cyborg anthropology provides an approach for talking about socio-technical systems the boundaries between human and machine. And finally, the confluence of Anthropology and STS opens up a wealth of new arenas for exploration.

Sociolinguistics

In various ways, anthropologists are grappling with the increasingly fluid boundaries of global communities. Seeking to move beyond the text-based analysis of language, Gumperz (1968) defined a speech community as a group with a “shared set of social norms” that is reflected in their communication to one another. He expressed that this approach gives primacy to “social factors in

language change" (1968:383). Later, the concept was broadened to a "community of practice" (Wenger 1998), which was "a community defined by social engagement" (Eckert & McConnell-Ginet 1998). This idea is a crucial one for this research because it provides a graceful way to transcend the limitation of geographic communities associated with traditional anthropology. Despite the value of these concepts, however, it remains critical to understand power relations as they exist in embodied exchange, so that we can be clear about how those relations are reinforced by computer-mediated communication (CMC). Thus, while I will document and analyze electronic exchanges in this dissertation, these will not be a primary source of understanding the relationships between different individuals and groups under study.

Research on technology and social change has focused on the concept of and implications for community. Some ethnographies take place entirely online (Horn 1998, Markham 1998, Rheingold 1993), and one (Hakken & Andrews 1993) takes place in a geographic community. There are also a number of articles which described different geographic communities and issues that arose as the development of a parallel electronic community progressed (Caroll & Rosson 1996, Dibbell 1993, Kraut & al 1998). Other books and articles reflect on how, why, and what happens when people use technological tools to build communities, and how those experiences are similar or different to those in 'real life' (Agre 1999, Fernback & Thompson 1999, Katz & Aspden 1997, Smith & Kollock 1999). However, all of these works fail to adequately address the

relationship between the virtual relationships and the embodied ones. This failure validates the approach undertaken in this research, which gives primacy to daily, lived experience and uses virtual communication to supplement these understandings.

Although as anthropologists we realize the limitations of categorization and analysis based on race, class, gender, we are still very much dependent on those categories. There has been much discussion in the popular press about how computer-mediated communities may be impacted by these issues, but anthropologists are just beginning to explore how our understandings might need to be re-evaluated. In an essay on online exchange, O'Brien (1999) says that in idealizing the online context, people believe that somehow categories that constrain face-to-face interaction will be eliminated, and that the boundaries of our bodies will simply disappear. As discussed earlier, some have argued that the Internet would offer the possibility for a revolution, but most agree that these new contexts continue to perpetuate, rather than alter, existing power relations. O'Brien concludes that we need to have some clarity about people's roles before we can comfortably interact with them. Ultimately, as Burkhalter (1999) argues for race, O'Brien underscores that such contexts will likely further reinforce stereotypes regarding gender, rather than open up new possibilities and understandings.

For example, traditional minorities in the realm of computer technologies (women, African-Americans), are increasingly present online in representative

proportions, but this doesn't mean they have any say in how technology is shaped, created, controlled, and how it in turn affects them. The majority of people holding computer science degrees, working in the industry, and ultimately shaping the tools and the communication that transpires in these new contexts is still an elite, non-representative group (Cameron 1998, Castells 1996). As Cameron (1998:6) points out in her introduction to *The Feminist Critique of Language*, this may result in an ever-widening gap: "The conditions are in place for a communicative practice originally dominated by men for material reasons (e.g., better access to technology) to go on being dominated by men for social reasons even after material conditions have changed." Thus it is not surprising that the study of language and power generally (Akinaso & Ajitutu 1982, Bordieu 1991, Woolard 1985), and the study of language, gender, and power specifically (Cameron 1998, Eckert 1998, Eckert & McConnell-Ginet 1998, Maltz & Borker 1982, Matoesian 1993, Troemel-Ploetz 1998, Uchida 1992) will be valuable tools in an analysis of high-tech workplace communications, as these both play an integral part in the transmission of corporate culture, values, and priorities.

Corporate communications are usually transmitted by email or by phone and video conference. This is a necessity because in addition to working remotely, members of the same team may work in different time zones, even changing time zones from one day to the next. While most forms of computer-mediated communication (CMC) are asynchronous, the implications of this is

virtually absent in current discussions about the Internet and other electronic forums. In her book *The Argument Culture*, Tannen (1998a) expresses her concern that additional communication with strangers and the lack of face-to-face accountability in computer-mediated communication will lead to increasingly hostile exchanges. Leap's (1997) account of the development of anti-gay graffiti on a bathroom wall provides a similar perspective, both on issues of asynchronous communication and the negativity that often seems to accompany it. However, in a meta-analysis of studies on computer-mediated communication (CMC), Walther *et al* argue that there is not as much evidence for these trends as some would think, and in fact, argue that the cases that are reported may be somewhat exaggerated (Walther *et al* 1994:477-78).

As awareness grows about the role of asynchronicity in computer-mediated communication, recent studies have become more attentive to this issue. Certain studies (Cherny 1999, Davis & Brewer 1997) do look at the implications for the contexts they study, but it does not yet appear that any conclusive results about the impact have been reached (Walther *et al* 1994). There is nonetheless an important opportunity to assess the impact of these multiple communication channels on corporate employees. For example, in a context where CMC is omnipresent, face-to-face communication becomes a 'new' category of communication to be observed and analyzed. In large U.S. corporations today, travel is often the second-largest expense after payroll, not counting employee time lost in transit. In an efficiency-focused, cost-conscious

climate, face-to-face exchange may thus be rare, and may even have to be rationalized. In conjunction with analysis of CMC in the corporate context, this dissertation will also explore under what conditions face-to-face meetings occur, and why.

Not surprisingly, official communications by management have a significant role in shaping corporate discourse. In addition, these communications provide data on how forms of discipline are articulated and rationalized, and by whom. But communication that transpires through official channels provides limited insight into the full breadth of exchange occurring in the work context, since communications via email and digital conference are often uni-directional (top-down). Analysis based only on formal structures has been a limitation of other social sciences (Deetz 2003); perpetuating such an approach would further an imbalanced view of the corporation and do little to enhance our understanding of the complex dynamics at work in corporations today. Therefore, an understanding of lateral communication (peer-to-peer) or interpersonal exchange will provide critical insights into how corporate values are internalized or resisted by employees. Alternate forms of communication are as varied as the forms of discipline that elicit them, and the awareness of one informs the other. Research in this area has been done by social scientists, who have pointed out that awareness of the subtleties of workplace dialogue is critical for our understanding of the organization as a whole (Forester 2003, Lampe 2002, LaNuez & Jermier 1994, Page & Dyer Jr. 1990:115-16, Wynn 1979). My

insider (co-worker) status has been absolutely critical in this arena, as evoking shared experiences has enabled a level of personal exchange during interviews that would not otherwise be possible. However, in spite of my effort to collect data on multiple communication channels, this dissertation is nonetheless still biased in favor of top-down exchange, since communication through these alternate channels is often covert and therefore difficult to capture.

This study explores the role of communication to provide a more nuanced understanding both of the changing nature of communication and the corporation itself. However, language is “primarily constitutive rather than representational” (Deetz 2003:31), so more important than language use is the ways in which language creates both subjects and populations, at the same time validating the discourse it perpetuates. In Kunda’s book *Engineering Culture* (1992), the concept of *normative control* describes how employees are indoctrinated with particular concepts of a corporate culture to ensure their self-management. But Kunda failed to assess how different populations might experience, internalize, and act on that discourse in different ways and how normative control worked in concert with other forms of control in the workplace. In contrast, one of the objectives of this dissertation is to look at how groups within the corporation are distinguished as ‘populations’ requiring unique attention or administration. Differences rationalized by management and negotiated by employees make explicit both varying forms of discipline and how individuals make sense of their subjectivity. The challenge and strength of this dissertation is its analysis of

multiple populations, and the breadth of mechanisms of control that it seeks to make explicit for the reader.

Worker as Subject

The following section brings the three previously-discussed arenas (broadly: work, technologies, and language) together with the literature on governmentality inspired by the work of Michel Foucault. This confluence brings new understanding to the ways in which institutional discourse and forms of discipline constitute the worker as subject in the corporate context.

In addition to demonstrating how conditions external to the institution shape the activities within and beyond its bounds, the work of Foucault and others in the governmentality tradition has demonstrated the ways in which institutions are totalizing in their control. Foucault's (1975) *Discipline and Punish: The Birth of the Prison* described the way in which the Panopticon permitted the subjugation of prisoners beyond the boundaries of the prison, and without the direct gaze of a prison guard. More broadly, *Discipline and Punish* traces the transition from physical punishment of the body to a more complete form of control through a broad range of disciplinary practices.

In an essay exploring the usefulness of Foucault for organizational analysis, Burrell (1988:230) describes a struggle in organization theory to understand whether organizations should be compared for their similarities or contrasted for their differences. He describes a methodological change in Foucault's career, from an archeological method (looking for commonalities that

govern social practices) to a genealogical method (looking for subtle changes and unique circumstances to discover meaning). Burrell goes on to argue that it is precisely the combination of these two approaches that afford the most thorough understanding of institutions; both an understanding of their commonalities and their unique qualities is critical. In making this argument, Burrell (1988:230) supports Foucault's claim that "prisons resemble factories, schools, barracks, hospitals, which all resemble prisons". Foucault's study of the prison, then, becomes a model for institutional analysis. As such, echoes of *Discipline and Punish* are present throughout this dissertation; the upcoming chapters explore (a) space as a form of discipline, and (b) the plethora of highly rationalized technologies at work in corporations today.

(a) Social psychology, political geography, and other social sciences have demonstrated a growing interest in the relationship of power to space and place. Anthropologists, too, have been engaged in exploring these issues since at least the days of Margaret Mead, as evidenced by her early study of *esketics*, the scientific study of human settlements. Edward Hall's work in *proxemics*, or the study of human personal space, is perhaps better known by anthropologists today. Most recently, anthropologists have grappled with space and place in a reflexive way, by assessing what it means to be an anthropologist, when a critical rite of passage – being 'in the field,' and studying a clearly differentiated Other – must evolve in response to the changing nature of global relations (Gupta & Ferguson 1997). More specific to the focus of this dissertation, with corporations

exercising substantial power in the global system it is not surprising to see a growing body of literature on the relationship between corporations and their built environment. As anthropologists we still have substantial work to do to understand the role of both place and space as a mechanism for control, and more specifically for the creation of subjects (Burrell & Dale 2003) in the corporate setting. This dissertation furthers that goal.

(b) Foucault's neologism *governmentality* has been described as "a way or a system of thinking about the nature of the practice of government (who can govern, what governing is, what or who is governed" (Gordon 1991:3), where government is a practice intended to affect individual or collective conduct. Perhaps because the State and government as specific institutions have been conflated of with governmentality, little early work in this tradition explored the private sector. However, this trend has changed gradually in the past ten years, so there has been a growing body of work focused on the constitution of worker as subject in the private sector. This research has been done primarily in Critical Theory under the umbrella of Critical Management Studies, and has been driven in large part by the work of British sociologists and management theorists.

The work of Nicholas Rose (Miller & Rose 1990, Miller & Rose 1995, 1989, 1999) has helped make the transition between citizen-subject and worker as subject by showing how practices like psychoanalysis, social work, and human relations create subjects. Rose (1989:116) has also demonstrated the ways in which management literature (generated largely in the U.S.) has infused

concepts of self-fulfillment into the workplace. More recently, a number of authors have demonstrated the value of subjectivity, agency, and resistance in our theorizing about the corporate context (Cooper & Burrell 1988, Jermier *et al* 1994, Knights & Morgan 1991, LaNuez & Jermier 1994, Reed 1988), and a few have begun to bring together governmentality studies in the private sector with ethnography, exploring changes in particular industry sectors, their impact on management practices, and ultimately on employees (Du Gay 1993, Knights & Willmott 2000b, Morgan & Sturdy 2000, Sturdy *et al* 2001). The existing research has demonstrated that in an extremely market-focused context like the high tech corporation, an entrepreneurial spirit is also fostered within organizations, as the energy, productivity, and complicity of employees is believed critical in responding to elusive, ever-changing market demands.

The impact of specific bureaucratic practices has been explored extensively by management theorists, but only a few authors analyze these technologies as instruments of governmentality. These latter scholars have been particularly focused on areas that will also be addressed in this dissertation, including accounting (Covaleski & Dirsmith 1988, Covaleski *et al* 1998, Hacking 1985, Power *et al* 2003), statistics (Hacking 1991), human resources practices (Deetz 2003, Townley 1993a, 1993b), and, more broadly, corporate discourse (Berdayes 2002, Knights & Morgan 1991, Morgan & Sturdy 2000, Sturdy *et al* 2001). Ironically, what becomes clear from this work is that the individuation created by these practices actually results in a loss of individuality (Townley

1993a:537) and creates a compliant subject. The majority of the work both on industry trends and specific practices has been done in Europe. Few if any of these studies have combined the governmentality literature with longitudinal fieldwork; most are empirical studies based on interviews and other forms of data collection like archival research. By bringing the strengths of these approaches together with in-depth participant observation at one institution, this dissertation deepens our understanding of the impact of modernity and practices of governmentality on employees the corporate context.

From Inside the Iron Cage

Many anthropologists have attempted to answer the question of how to be sufficiently engaged and disengaged simultaneously. How can we – or can we – be agents of change in the world we study? This has resulted in deep questioning of the traditions of Anthropology (Diamond 1969, Escobar 1995, Gledhill 1994, Hess 1997, Hymes 1999, Schneider & Rapp 1995), and how to bring our theoretical ideas back to social justice and action. Nader (1969) argues that anthropologists “have not had an intense commitment to social reform because of their relativistic stance and a belief that such a stance was necessary to a truly ‘objective, detached, scientific perspective.’” The work of scientists and social scientists alike is couched in a complex political and economic structure that is an integral part of how ideas are formulated, analyzed, and ultimately presented. Rather than denying these ties, Hess (1997) proposes an analytical approach that looks at culture and power, evaluates the perspectives, and

ultimately positions an appropriate intervention based on the information gathered. Since I have undertaken my research at my place of employment, I have been asked to make recommendations based on the research I have done. As a result, I have taken steps down the path recommended by Hess.

My dual role as a researcher and employee at TechSoft has posed challenges in this research. I think it is critical to describe these challenges briefly because it provides “important insights into the way particular places are locally conceptualized, bounded, and resourced” (Hirsch & Gellner 2001:5), and how these realities have had an impact on my research. When I arrived at TechSoft in 1998, I made it clear that I was a doctoral candidate in anthropology, and that my research was relevant to my work. That year I had been invited to present at the American Anthropology Association conference on the topic of computer-mediated communication, and on these grounds TechSoft agreed to pay my tuition. This was formalized in my hire letter.

TechSoft was a subject of curiosity for me long before I decided to use the U.S. headquarters as a research site. I had been reading and thinking about mechanisms of corporate control for several years, but I received written permission from TechSoft to undertake my research on site beginning early in 2001. The timing of this decision has had an impact on the types of data I have at my disposal for this body of work. I have notes from my participant observation starting at the time of my employment, but I do not have formal interview data for the period of 1998-2001; stories have been reconstructed after

the fact from my notes and follow up interviews. It is only beginning in 2001 (once my legal agreement and IRB paperwork was complete) that I made my research interests clear to those with whom I worked. At that time I began actively communicating my role as both a fellow employee and a researcher, and engaging colleagues in interviews.

All TechSoft employees are required to sign a Non-disclosure Agreement (NDA) during New Hire training. Signing an NDA is fairly typical in the software industry and is usually a condition of employment. These agreements are designed to protect the intellectual property of the corporation during the employee's tenure and beyond.¹² While my research is not primarily concerned with the company's software, I nonetheless felt it would be critical to clarify the nature of my research with senior management, and assess any potential conflicts between my area of my study and TechSoft's corporate interests. I developed a consent form to protect those whom I interviewed, and a legal agreement that ensures my full ownership of my research data and analysis. The latter is possible in part because I am not employed as an anthropologist, so while I spend my day immersed at my research site, I have written fieldnotes and undertaken all interviews during non-working hours. To ensure that the interests of the corporation are also protected, publications or presentations of my findings are reviewed by TechSoft Legal and the Corporate Communications department.

¹² Many such agreements have 'non-compete' clauses that prohibit sharing of company-proprietary information. This may be enforced by legal means in cases where a staff member seeks employment with a competitor.

I undertook all these measures in addition to a review by the Institutional Review Board (IRB) for the protection of human subjects at Temple University. In the end, these negotiations have permitted me to present the work set forth in these pages. This dissertation is solely the work of the author, and the opinions expressed in it and conclusions drawn are my own. TechSoft did not sponsor this work, and TechSoft does not take an official position regarding the work, its content or conclusions.

Insider Anthropology

Early anthropologists were from imperialist countries, and they sought understanding that would assist their government in the management of indigenous populations. These anthropologists aspired to be acknowledged as scientists, and to that end they spoke their truth from an omniscient third-person perspective; this approach was used to lend legitimacy to the discipline and its insights (Patterson 1996). By the end of World War II, many colonies had erupted in wars of national liberation, forcing anthropology to look at its ties to imperialism.

In the 1960s, world systems theory was critical in refocusing the anthropological lens on the broader social, political, and economic context in which traditional anthropological research had been embedded. In addition to broadening the scope of traditional ethnographies, anthropologists began to call for a focus on large institutions and corporations that impact the everyday lives of people all over the world. At the same time, anthropologists were wary of the

appropriation of their data for government efforts, and they were more cognizant of their knowledge production and its potential impact on the cultures they studied. One outcome of this shifting perspective was a more collaborative approach with those “subordinated and governed” to ensure that those being studied could also benefit from the anthropological research being undertaken (Wright 1994:15).

New collaborations with natives also resulted in native anthropology, which has broadened the perspective offered by the participant observer gaze. Native anthropology runs the risk of being “knowledge without understanding,” but on the other hand, the “reflexive native anthropologist ... is uniquely positioned to investigate how these almost automatic choices relate to the overall cultural pattern from which they emerge” (Cerroni-Long 1995b).

Another outcome of reconsidering power relations in anthropology was a self-reflexive trend, which emerged (partly) in response to increased scrutiny on anthropologist. Social scientists began to actively assert their research intentions and perspective as they presented their ethnographic data. Some anthropologists argue that this was an inevitable outcome of our research methods:

Fieldwork produces a kind of authority that is anchored to a large extent in subjective, sensuous experience. One experiences the indigenous environment and lifeways for oneself, see with one’s own eyes, even plays some roles ... in the daily life of the community. But the professional text to result from such an encounter is supposed to conform to the norms of a scientific

discourse whose authority resides in the absolute effacement of the speaking and experiencing subject. (Pratt 1986:32)

However, in bringing a self-reflexive mode to one's work there is also the danger of self-absorption or self-consciousness (Ruby 1980) which could relegate the research to human-interest alone. As with other forms of disclosure, it can augment understanding and provide insight if it is done well. Where appropriate, I will use a reflexive approach in my writing to make my role within TechSoft explicit.

Forsythe (1999) argued that studying up disrupts the "traditional fieldwork narrative," and at the same time calls into question all that is familiar ground for anthropologists from an ethical and methodological perspective. Rather than existing in a distant parallel place, she described this new research context as one where we can have fuller participation, because we speak the language and have a greater knowledge of the society and its workings. Thus, research at home may result in a deeper understanding of the culture in which we are immersed. Jaffe (1995:44) concurs:

I became progressively less interested in describing or analyzing the 'tacit knowledge' underlying military ritual, custom, and organization. ... Being on the inside, I was interested in eliciting opinions, interpretations, and understandings about military life on the same level of intimacy as I experienced it.

The deeper immersion of insiders brings together the emic and etic perspectives, which offers the "best reporting of anthropological data" (Garbarino 1977).

At the same time, the “performance of commitment” (Jaffe 1995) certainly contradicts the objective observer role in which anthropologists have traditionally put themselves. The fact that I have been promoted over time at TechSoft is in itself a limitation, because in order to achieve that success I may have internalized certain aspects of the corporate life that I have not made or cannot make explicit in my writing. While I may know the hierarchies intimately, and understand how to navigate the power dynamics, as a result of my role as an employee my access is also restricted in a way that it might not be if I were solely a researcher. In addition, the fact that I am always inside means that there is no space to go outside and reflect. My work is my research and vice versa. To say that this has been a challenge in the analytical process would be a gross understatement. I have used the time in my car on the way back and forth from work as liminal space, sometimes pulling over by the side of the road on the way into work or on the way home to capture the fleeting thoughts at the intersection of those two ways of thinking.

Studying Up

Laura Nader (1969) argues that large institutions and corporations will have a great impact on the world, and anthropologists can offer valuable insights as to how power is exercised in these contexts. She believes that we have unique perspective to bring to these discussions because we consider the global and the local, the manager and the user simultaneously. The study of large corporations offers insights into how these powerful institutions shape our world,

and how the field of anthropology must rise to the challenge of 'studying up'. Traditionally, anthropologists' "major response has been one of retreat" (Wolf 1969:260-1) in situations where co-optation has been a possibility. There are still dissenters who believe that studying up is not possible, because "cultural similarity prevents valid anthropological analysis" (McLeod & Wilson 1994). These critiques are often followed by admonitions about the dangers of co-optation.

In this research I am studying up because the corporation and management are more powerful than I am; the complexity of my legal agreement is a testament to that. When I started my research I had senior management sponsorship and access. But over time, with changes in the corporation, growing uncertainty about the company's direction, and regular organizational change, I have lost key sponsors and mentors in the organization. My perspective therefore derives from indirect information about corporate direction in conjunction with corporate communications, and not through direct discussion with the management team about their intentions.

Forsythe (1999) remarks on the many challenges facing anthropologists when studying up. She comments that this type of participation requires us to be experts not only in anthropology, but also to some extent in our area of inquiry. As a result, anthropologists may have similar skill sets and jobs to those we study, and we may also be competing against colleagues for funding and/or workplace resources. Informants may be in a position of power over the

researcher, and in fact, sometimes the person being studied may also be the source of the anthropologist's paycheck. This in turn leads to questions regarding who owns the data that is produced. While in traditional anthropological work the research clearly belongs to the anthropologist, in an environment where the subject of study is paying the anthropologist, the ownership of the data collected during the anthropologist's employment is much less clear.

In addition, informants can read what is being written about them, which results in a new accountability and criticism as part of the research process. Forsythe and Traweek (1988) regularly submitted drafts of her work for her informants to review; I have done the same with my research and writing. Forsythe (1999) and other anthropologists (Downey & Hogle 1999, Sherry 1999, Suchman 1999a, 1999b) also describe situations where after observing anthropologists' approach, others attempt to use ethnographic methods. To protect their livelihood and also to ensure that the ethnographic methodology is used properly, anthropologists have then felt obligated to 'police' the use of ethnographic methods at their sites, adding to the already complex power dynamics at work in these contexts.

These challenges are compounded by problems internal to the discipline. By the early 1970s, graduating anthropologists began to look again to industry for employment opportunities because of the "collapse of the academic job market" (Baba 1994: 174). A growing fissure between academic and practicing

anthropologists was formalized in 1971 by the American Anthropological Association (AAA) through the *Principles of Professional Responsibility*, which prohibited 'proprietary research' by requiring that anthropologists not release their reports to project sponsors if the results were not also made publicly available. The Principles were revised again to become less restrictive in 1976 (Baba 1986: 7), but as a result there was not much anthropological work being done internal to U.S. businesses again until the 1980s.

The tensions still exist today. In 1999, the AAA adopted a *Declaration on Anthropology and Human Rights*. According to the Declaration, anthropologists have a responsibility to communicate their research results to and beyond the anthropological community, in order to ensure that our expertise protects human rights. But the Declaration requires a degree of knowledge sharing that stands in stark contrast to the often stringent restrictions of proprietary corporate research. Practicing anthropologists today thus continue to find themselves disenfranchised by or at odds with their governing body.

Chapter Summaries

This dissertation will describe the how practices of employee control in the corporation reflect both the changing global context and specific, local forces at play in one U.S. high tech corporation. The chapters are organized to some degree around Foucault's four arenas of power (see pages 7 through 10 of this chapter), though there are almost always multiple dimensions of power enacted simultaneously.

Chapter 2 describes technologies of power – the bureaucratic framework that is in place to manage the corporation, with a particular focus on global management of the U.S. subsidiary. Global policies and programs seek to reinforce the authority of the parent company. This chapter explores how experiences and perceptions of the global organization vary widely within the diverse populations of the subsidiary. The chapter also explores how and where local understanding diverges from the global.

As computing technology and technical literacy become more prevalent in corporations, computing technologies play an increasing role in the lives of workers. This is especially true in the high tech industry. Does (or how does) the experience vary for employees who are physically or strategically proximate to the core? How are computing technologies used in tandem with other means to elicit the desired behaviors from employees? Chapter 3 assesses the way(s) in which employees are constituted as part of the socio-technical systems in which they work, and how they co-construct the technologies of power and production to which they are subject.

Given that corporations are dispersed around the globe and that many working teams are no longer co-located, Chapter 4 explores the significance of space in relation to corporate values and priorities. What meaning does a headquarters building have in this context, how do understandings of space differ, and why? In general, how does placement in space (relative to the core) or even absence of space have significance? In other words, how is space a

technology of power, and what form does the Panopticon take in this new work context?

In order to ensure employee compliance in the attainment of corporate objectives, mechanisms of control must be personalized in such a way that they constitute the worker as subject. Chapter 5 seeks to explain how this transpires in the high tech corporation. What forms of discipline – including technologies of the self – are at work in corporations today, and what discourse frames them? As global markets expand and contract and as mergers and acquisitions alter the competitive landscape, the free market system demands increasing differentiation (Leslie 1995:403). Chapter 5 further explores how the corporate discourse evolves in response to these pressures. Internally, do new more totalizing mechanisms emerge as Foucault, Burrell (1988) and others would suggest? Do or how do these new practices build on the old? How do both sign systems and the relationship with external audiences evolve, and what impact does this have on employees?

Chapter 6 also explores what happens when theoretical concepts of management theory meet the realities of corporate life. Building on the legacy of Weber and others, management theorists argue for a progression of corporate forms and practices; these are the primary analysts of corporate practices today. But can these theories account for the complexities and human concerns of everyday reality as experienced by employees? Do (or how do) employees make sense of rapidly changing categories in the high tech corporate setting? In

exploring these and other questions, Chapter 6 furthers the case for ethnographic approaches in the study of corporations.

In conclusion, Chapter 7 evaluates how the ethnography of TechSoft America furthers our understanding of the current practices of high tech corporations, what this means for the lived experiences of employees, and for the future of work in a globally dispersed corporate context. It closes by assessing the larger implications of this research and suggesting areas that warrant further exploration.

CHAPTER 2 CONTROL FROM THE CORE

Overview

In her doctoral dissertation about the Swedish offices of Apple Computer, Christina Garsten explores “power relations underlying cultural processes, as they are expressed in relations of center and periphery” (Garsten 1994:vii). Not unlike Apple, TechSoft is markedly shaped by its transnational corporate structure. In this dispersed organizational model, the policies and practices of the TechSoft parent company in Europe are statements of control from the core, intended to elicit the desired behaviors from the U.S. subsidiary. Roles and responsibilities are reinforced by management practices and corporate communications at the global and the local level, both of which I will discuss at greater length throughout this study. The present chapter will focus primarily on the ways that the global company manages the U.S. subsidiary, and how this in turn informs local practices and experiences.

TechSoft has been in business for over 25 years, and over time has grown enormously. The founding members and Board of Directors reside primarily in Europe, and much of the software development (including supporting departments like product management) is also done in Europe. As with many transnational corporations, at the time of this study, TechSoft was divided into three operating regions: EMEA included Europe and Africa, APAC was the Asia-Pacific region, and the Americas included the U.S., Canada, and Latin America. The regions are staffed primarily with sales and services (training and consulting)

staff. In addition to the large group of centralized developers in Europe, there are small development labs in other regions including India, Israel, and the United States. Initially, these labs were established to deal with region-specific product requirements, but over time the development of the core product has spread across the globe as TechSoft takes advantage of the lower labor costs in parts of the world with a growing, technologically capable workforce.

Although the company's software developers are increasingly distributed, TechSoft's plans for growth and future product development are still primarily made in Europe; global headquarters clearly remains the locus of decision-making and strategy for the company worldwide. And yet, much of the drive for new market opportunities, product requirements, and innovation occurs in the United States. During 1990s, the market potential in the U.S. was so great that the region was given substantial freedom to target those opportunities. However, the ensuing industry and economic downturn forced the U.S. to adopt financial controls and undergo organizational changes. In addition, during the period of this study the U.S. subsidiary was less of a force in driving revenues for the corporation, and it was forced to resume its status as simply one of many regional sales and marketing arms for the corporation. During this period, reflections from TechSoft America on the global organization seemed to take the form of criticism rather than praise. However, these sorts of tensions are not atypical of transnational companies (Kleinburg 1994:156). In the case of TechSoft, these dynamics are fueled by the unequal distribution of power and

differing organizational priorities. Through financial, organizational, and system controls, the authority of TechSoft's global headquarters is reinforced on an ongoing basis.

Anthropologists and management theorists have analyzed corporations extensively, but there are two very specific approaches that are relevant for this discussion. On one hand, anthropologists have looked at *policies* (Shore & Wright 1997a) and on the other hand critical management theorists have looked at *strategies* (Knights & Morgan 1991). Each field of study emerged and was defined as a result of a very particular set of historical and disciplinary circumstances. Policy was defined as a “new domain of anthropological inquiry” in response to concerns about the passivity of citizens in the European Union (Shore & Wright 1997a:3), and strategy was deconstructed by critical theorists Knights and Morgan in an effort to analyze the discourse of management theory itself (1991:251). Perhaps most importantly for this dissertation, both concepts refer to a set of practices or a discourse that seeks to legitimate the authority of a governing body – government on one hand and corporations on the other – while at the same time obscuring it; that is, policy and strategy have both been defined as instruments of governmentality. The success of each depends in large part on the successful constitution of subjects – those who ‘freely’ internalize the discourse and subsequently become self-managing.

However, since both *policy* and *strategy* are also lay terms that have multiple meanings, I would like to clarify my usage of both words here. At

TechSoft (and perhaps in the corporate context more broadly) policies create and enforce a set of behaviors that constitute employees as good citizens of the corporation and its internal practices: for example, adhering to the rhythm and deadlines of corporate budgeting, completing and submitting the right personnel forms, conscientiously documenting time off from work. Strategy appears to be used in a market-focused way, and so seeks to constitute employees as active participants in achieving the corporate objectives relative to the industry and the market. This chapter is primarily focused on TechSoft's global policies – what I would describe as the most fundamental gears of the bureaucratic machine – and their local impact. Subsequent chapters of the dissertation will explore the growing importance and impact of TechSoft's strategy, how it builds from these global policies, and how the local strategy is legitimated through market discourse.

Global Management Practices

Shore and Wright (1997b:4) state that “policy now impinges on all areas of life so that it is virtually impossible to ignore or escape its influence.” It is also a particularly useful concept for the study of transnational organizations because “a focus on policy provides a new avenue for studying the localization of global processes in the contemporary world” (1997b:13). This is certainly the case with financial and human resources practices at TechSoft. While at times there has been tension about how many staff should be allocated to a particular area, and how much should be funded globally versus locally, there does not appear to be

any disagreement that the global parent company is intimately involved in shaping the decisions of each subsidiary. In fact, the existing policies leave no room for question that the global executive team is the ultimate decision-maker in these activities.

Financial Measures

The process of jointly establishing goals and objectives ensures that all parties are committed to 'making the numbers,' whether through revenue generation or cost containment. At a subsidiary level, making the numbers for the quarter or the year has three aspects. The first objective is to meet the *revenue* target that was jointly established by global and U.S. senior management; ideally this is done in large part through software license revenue, and secondarily through services revenue. Despite the revenue potential in training and consulting services, sale of software licenses remains a critical focus for TechSoft, because licenses are renewed annually and provide a consistent income for the corporation as a whole. Software license revenue is thus a key metric monitored by industry analysts as well. The second objective is to make the revenue targets with a good *profitability* margin; profitability measures the ability to make money in a cost-effective way. The third financial measure is *contribution*, which is a portion of the profit that the U.S. organization pays back to the global parent company, a sort of tithing to support software development and related organizational costs. If profitability is low, it may be difficult for the subsidiary to make its projected contribution to the global organization. Each

subsidiary is managed to the same three criteria; in particular there is a standard contribution level worldwide. While profitability margins do vary by region to some degree, revenue objectives vary substantially as well, depending on the size of the region, current economic conditions in the area, and so on.

At TechSoft the fiscal year mirrors the calendar year, and thus budget planning for the following year begins early Fall. Budgets are constructed from bottoms-up and top-down. Sales teams evaluate which deals will close before the end of the year, and which ones they anticipate will slip and close in the new fiscal year. Based on this they provide a projected bottoms-up revenue number to management. Sales-supporting and non-sales organizations undertake similar process, in which they propose business plans and the associated cost involved. All of this data is consolidated by business unit, and then rolled up to management. In the top-down budgeting process, both global and local management teams formulate strategic goals for the year. These are established relative to key competitors in the market, as well as previous years' performance, and always with profitability and contribution margins in mind. As a result of the top-down analysis, sales teams are almost always asked to achieve targets higher than those indicated by their bottoms-up budget, and non-sales organizations also experience budget adjustments based on corporate strategy. Once this process is complete, or sometimes in parallel, regional senior management undertakes a similar negotiation process with the global senior

management team. The resulting budget helps to finalize business plans for all departments.

These same three metrics of revenue, profitability, and contribution are woven into regular communication from TechSoft management to the employee base. The message company-wide is that success or failure in achieving these objectives impacts global profitability, market perception, analyst reports, and potentially the value of company stock. The manner in which these metrics are rendered personal through local management communications and compensation is the subject of Chapter 5.

Organizational Measures

TechSoft's subsidiaries are encouraged to minimize headcount wherever possible by relying on centralized, corporate teams and resources. However, at times, when global prioritization has insufficiently addressed local requirements, the U.S. organization has created small development teams, as well as product management and other functions that also existed globally. In recent years, challenging economic conditions have made the practice of supplementary headcount increasingly difficult to justify, a topic I will discuss at greater length in Chapter 6. This portion of the chapter focuses on the how the distribution of resources and responsibilities reinforces the role of the U.S. subsidiary as a regional, revenue-focused sales and marketing arm for the parent company.

As would be expected, the high-level organizational chart of the Americas depicts the Chief Executive Officer (CEO) and President at the top of the

pyramid. On some versions, a small box above him indicates the global Board of Directors, to whom he is ultimately accountable. But the reality is that the organization chart obscures as much as it reveals. How relationships are depicted, where teams and individuals appear – indeed, if they even appear at all – provides insights into the allocation and management of human resources as a mechanism of global control. For example, the employees that appear on the U.S. organizational chart only represent a portion of employees working in the United States; they are complemented by employees of other global operating units. There are Development facilities in Silicon Valley, but all human resources and payroll for these individuals are handled through a branch of the global human resources group. The developers are not on TechSoft Americas or U.S. distribution lists, and any exchange of billable services that occurs between groups is handled through inter-company invoicing. In a similar situation, the Global Marketing group is based in the U.S., but has a separate Human Resources organization and a separate travel services agreement with an external vendor. With these teams, the organizational chart reinforces the priorities set for the Americas by the global executive team. The United States is supposed to focus on generating revenue through the sale of software and services, and not on Development or Global Marketing. One resulting outcome, however, is that TechSoft employees working in the U.S. for TechSoft's other operating units are not a subject of focus for TechSoft America's management team, even though these global teams may be critical to success of the local

organization. As mentioned in the Introduction, both placement in space and absence of space have meaning. Similarly, by not including these employees on regional organization charts, the U.S. executive team is encouraged to focus their energy and attention on resources that they control – those sales and services staff that generate revenue for the region.

Global Management of Local Resources

A number of the individuals reporting to the CEO have some dotted-line reporting¹³ relationship to a global counterpart, who has responsibility for aligning the activities of that role across all regions. Thus, the Americas Chief Financial Officer in reality operates more as a regional Controller (with responsibility to a global CFO) than as truly autonomous CFO. This pattern of global accountability holds true in many parts of the organization. For example, the staff in the Information Technology (IT) group provides support for the Americas technical infrastructure and business systems. Because IT does not generate revenue their skills are not considered a core competency for the region. IT staff works in the U.S. and is paid on the U.S. payroll, but headcount is funded and managed by the global organization. Since they are part of a global organization, they have no senior leadership that reports up to the CEO in the U.S., and they do not appear on regional organization charts. This requires them to negotiate between both contexts; on one hand they deliver services to the region, but on the other

¹³ The practice of matrixed organizations and dotted-line reporting first made its appearance in the private sector in large engineering companies in the late 1970s and early 1980s. This was one of many “new intellectual methods to deal with complexity ... that allow[ed] experts to maintain complementary but conflicting goals ...” (Bugos 2000:128).

hand, they are ultimately accountable (for business plans and performance reviews) to their global management team.

It might appear that a degree of detachment from local authority could serve as a benefit for these employees. On one hand, it does reduce the complexity of dotted line reporting. But on the other hand, in the absence of direct on-site supervision, this approach relies heavily on peer surveillance. One alternative corporate strategy for resources that are being globally supplied would be to pay them globally, but give all the accountability directly to the regional organization. The fact that this is not the case suggests that centralized control of the employees' actions through global accountability is a preferable approach for IT and many other operating units at TechSoft as well. Again, these practices serve to reinforce the U.S. subsidiary's role as a revenue-generating arm of the corporation.

Fast trackers

There are a variety of other ways that the relationship between core and periphery plays out in the allocation of human resources. For example, it is not uncommon for rising stars from other regions to be given U.S. appointments to drive key global initiatives in the region. These young (almost always European) executives have at times exacerbated the tensions between global and local. For the appointees, these opportunities are considered fun, prestigious, an essential rite of passage on the fast track to global senior management in Europe. However, their arrival in the U.S. is frequently not well received. While

few people would attest openly to this for fear of being perceived as discriminatory, exchanges between employees, former employees, and interested others reveals a great deal of hostility regarding these practices, as an Internet chat room reveals:

You miss the point. The problem is that TechSoft in America lays off US employees ... and later moves [foreign] employees over to take 'new' jobs. A company that lays off US employees in the US and replaces them in the US with foreign employees with so much unemployment in tech, shouldn't get US support. I have no problem with companies hiring overseas ... just with companies replacing US workers with foreign workers in the US following layoffs.

And later:

I'm afraid you miss the point ... The point is ... why should US companies support a [foreign] company that discriminates against US employees, when they could buy the same functions from a US company that does not discriminate against US employees? If the [foreign] TechSoft management wants to take advantage of US labor laws (or lack thereof) to lay off US employees, then US companies shouldn't buy their products.

The anger of job loss by globalization (or the fear of its possibility) in the economic downturn provides a great deal of the explanation for this hostility, and corporate relocation practices have exacerbated the tension. In order to get a two- or three-year visa, these employees have to be accorded a Vice President title by the company. However, they are given the benefits but not the responsibilities of 'native' U.S. Vice Presidents. In the U.S., vice presidencies are limited, prestigious, and afford the first tier of senior management perks, like a monthly car allowance in some cases. So, these fast-tracked young men arrive

to work into executive positions, with little understanding of how U.S. business operates or how their title impacts perceptions of them. These long-term visitors tend to eat and socialize together, and in general, whether through discomfort or their awareness of colleagues' displeasure, they isolate themselves from the work environment they came to learn about. While they are working in the U.S. and paid by the U.S. organization, the terms of their employment are still governed by European labor laws. If a re-organization results in the elimination of the position to which they were assigned, they are almost always re-allocated to a new role, though they occasionally return to Europe early. In any case, at the end of their visa they usually return home to Europe. What they leave behind is anger and distrust between regions that is not easily rectified.

In recent years, the nationality of the CEO at TechSoft America has alternated between European and American, and the influx of international workers has varied substantially in relation to the CEO in power at the time. It has been openly acknowledged by global Board members that U.S. employees prefer a local-born CEO. This is not to suggest that the tensions between global and local evaporate with a U.S.-born CEO in office, but rather that during these periods, the employee base appears to have greater trust that their executive team will make region-specific requests of the global parent company if needed. This presents an interesting challenge for the Board in making a hiring decision for the U.S. CEO role, because under the leadership of certain U.S. executives,

the organization developed a reputation for being somewhat headstrong and unruly (e.g. not entirely aligned with global).

From the perspective of some employees in the U.S. subsidiary, the tension between global and local seems to be more apparent in the employee ranks with a foreign-born CEO. I would argue that the former is in part the lack of autonomy in the global dynamics is difficult pill to swallow. However, U.S. employees may come to develop an appreciation for the cohesiveness that someone from outside the U.S. can provide with a global organization. But it may represent a growing reality for U.S. workers in high tech and other industries where the U.S. offices are part of a multinational corporation that is not U.S. owned. In fact, there are as many Americans working in European companies today as the other way around. While these fast trackers only represent a very small portion of employees in the subsidiary, they are a clear reminder about where the power lies. Accepted or not, fast trackers at TechSoft are globally visible, responsible, and often serve as the eyes and ears back to their global project sponsors and other members of the global management team. The role of short-term foreign visitors in corporate subsidiaries is a dynamic in that merits further study – both in the U.S. and elsewhere – in the years to come.

Authorizations and Alternative Perceptions of Hierarchy

At TechSoft, globally-funded and globally-managed employees like IT co-exist with U.S. colleagues ‘in the field’ who have revenue-generating responsibilities. In general at TechSoft, ‘the field’ refers to remote employees,

though it means different things from different parts of the organization. From global headquarters, the field usually refers to the subsidiaries and regions. From within the U.S. subsidiary, the field refers to the Sales and Consulting employees who spend the majority of their time at customer sites. Thus, the field implies a certain remoteness from the core of decision-making; these employees are often more aware of the inner workings in the subsidiary or the customer site than they are of the happenings at TechSoft headquarters. This in turn results in a degree of distrust (Baba 1999), since this disconnectedness represents a risk (Giddens 1990:26-7) to compliance with corporate policies.

In spite of their relative geographic proximity to one another, IT staff and employees in the field are constituted as subjects of organizations with vastly different priorities and functions. Corporate myths say that European developers grumble that U.S. sales staff are overpaid, and that developers should be paid more – the argument being that without them there would be no sales. Sales staff in the regions counter by saying that without sales, there would be no need for developers! Of course, both of these views are true to some degree, but both comments reflect another major difference in how employees understand their organizations and themselves – the technocratic (primarily global) versus market-focused view of the corporation.

In her writings (1996a, 1997), systems engineer Ellen Ullman describes the hierarchy within her field, explaining that engineers earn prestige by being close to the machine, and as far away from users as possible:

If regular people, called 'users,' can understand the task accomplished by your program, you will be paid less and held in lower esteem [by your colleagues in the computer industry] ... If you want money and prestige, you need to write code that only machines or other programmers understand. (1996b:55)

She goes on to say that the most prestigious engineers write microcode, which is a series of ones and zeros that communicate to system hardware. Assembler code is also very prestigious, because it is a list of instructions to the processor that are comprehensible to humans only with the proper training.¹⁴ Ullman describes the career development of a colleague named Frank, who was unsuccessful as a programmer, and therefore became a sales-support engineer. Of his job changes, she said:

Ironically, working in sales and having a share in bonuses, he made more money. But he got no more stock options ... When asked, we said 'Frank is now in sales.' This was equivalent to saying he was dead. (1996b:55)

The ability to dress in jeans, t-shirt, and sneakers (or other similarly casual attire) is one of the markers of a job that does not require customer contact, and is considered one of the privileges of technical positions. This hierarchy also holds true in the world of IT; the most technical jobs with the least customer contact have the most prestige.¹⁵ In contrast to this technocratic view where the most prestigious roles are those closest to the machine, the customer is of primary concern to sales and consulting staff.

¹⁴ Part of the reason Linus Torvalds is so admired is because working on his own, he used manuals and existing examples to create the assembler code of Linux.

¹⁵ The subtle distinctions within IT groups will be explored in greater detail in Chapter 3.

The interactions of IT staff with field personnel thus provide an interesting opportunity to explore how these disjunctures manifest themselves. Specifically, this last part of this section explores how the policies surrounding system authorizations become a point of contention between the IT organization and customer-facing employees. The authorization policies are made to appear neutral (Shore & Wright 1997b:8-9), in spite of the fact that they are based in deeply held beliefs about company hierarchy¹⁶ and perceived security risks. Furthermore, the policies are not just external; ‘good’ IT employees act as experts and protect the company’s interests by enforcing regulations that they may not entirely understand.

At TechSoft, the IT Field Support team is responsible for maintenance and support of laptops and the file servers in local offices; responsibility for the technical administration of all systems is shared among the team members in each office. The software interface for these activities represents the authorizations graphically, with the Administrator at the top, and all other authorization profiles¹⁷ subordinate, in a sort of outline format. The Administrator password is never divulged because, as one IT employee stated “Then we would have to change the Administrator password on company systems all over the world!” This approach to authorizations follows standard Microsoft and Unix

¹⁶ For example, there are cascading authorizations that are dependent on the organizational structure in the Human Resources system. So, in spite of the fact that the structure may not accurately reflect how and by whom work gets done, it may nonetheless be used in a very literal manner to establish authorizations.

¹⁷ While computer savvy users may request administrator-level access to their individual laptop, this is granted as a profile attached to their individual userid.

conventions, and it gives IT the perception of being at the top of the hierarchy. As a result of these settings, TechSoft employees have very limited ability to customize their computers. For software installations and other system changes, remote TechSoft employees are required to 'come in from the field' and meet with IT in their local office, even if this means spending time away from customers.

In contrast to this very controlled but decentralized model, authorizations for the business systems are handled centrally. In one of the internal financial systems alone, there are fifteen thousand different authorization profiles that can be assigned; some are used in combination to provide access to highly restricted functions. There is a small department within IT at global headquarters that is responsible for assigning these profiles, and they receive over a thousand requests a week for changes. Internally at TechSoft, the authorizations group does not grant any special privileges to TechSoft consultants working on internal projects. The rationale for this behavior may be to restrict the number of people with access to modify the system, and perhaps to reduce the workload for the authorization group.

In standard consulting practice, when a consulting group comes to work at a client location, access to the systems is granted to those consultants so that they can perform the functions for which they were contracted. When authorization issues do arise, it may be because the client does not want to relinquish full control of the system to the consultant, or it may be that the

authorizations that are required are complex and difficult to assign. Both of these may be the case with consultants working on internal engagements. So, in order to complete their project work, TechSoft consultants are forced to log on as other employees or to view as much of the task as possible with their existing authorizations. They then work with an authorized (though perhaps less knowledgeable) employee to look at the restricted parts of the system, and either describe what needs to be done or walk the authorized employee through the necessary changes or additions. In this way, senior TechSoft consultants – who are normally entrusted with the critical business systems of their customers – can be restricted from applying their expertise to the business systems of their own organization. Seniority, recognition, and privilege in the customer context do not easily translate to internal project work. This rigid control of authorizations represents a statement of control from the core; only a select group of individuals in the local organization are entrusted with profiles that allow system modifications. In general, these relationships can be characterized as distrustful, something that Baba (1999:335) has said is likely when relationships are relatively new, or sustained over distance.

While the relationship between global and local form part of everyday reality at TechSoft, this chapter will be the only one in the dissertation that focuses exclusively on the relationship between the global parent and local subsidiary. The remainder of the dissertation focuses primarily on how the global guidelines and requirements are enacted at a regional level, with the U.S.

executive team speaking as the voice of authority to a workforce that is largely dispersed throughout the region at customer sites. Chapters 5 and 6 will address the ways the U.S. management team transforms global corporate *policies* into a market driven *strategy* for the subsidiary. Local management establishes urgency around the market and the customer, and renders corporate objectives personal at the employee level through performance reviews and compensation. In this way, global policy is further masked through market discourse and technologies of the self. However, the next step in the journey is Chapter 3, which will explore how socio-technical systems are used to regulate employee behavior, and how different support organizations experience the same technologies (and some cases the same customers) in different ways.

CHAPTER 3 TROUBLE TICKETS AND TIME

Overview

The demand for technical support has exploded as computing technologies becomes a part of everyday life for many Americans. This chapter describes the use of the internal customer support (CSS) and time management systems (TMS) at TechSoft America as they were used during my research period. By exploring my use of those systems in two different technical support jobs at TechSoft, this chapter explores how populations are managed to different ends with the same systems. A thorough understanding of the social part of the socio-technical system is absolutely critical for understanding how and why these differences occur. Office automation may literally or figuratively be an automation of factory work, or the further rationalization of work that Weber predicted. In fact, those whose work has become increasingly standardized may find themselves managed by a set of tools and processes that resemble mechanisms of control typically described in the manufacturing sector. This is certainly the case in the Information Technology (IT) and Curriculum Development groups at TechSoft, where computing technologies that measure employee performance are intricately intertwined with the organizational priorities and financial measures described in the previous chapter.

However, as Foucault cautioned, “what we have to do is analyze specific rationalities rather than always invoking the progress of rationalization in general” (1982:210). Customer service roles like these have been of growing interest to

academics in recent years (Rosenthal *et al* 2001, Wray-Bliss 2001), and as social scientists we are inevitably contributing to the constitution of these workers as subjects through our continued analysis. The curiosity is in part to look at how work has changed in the transition from manufacturing to services. However, it is not possible to effectively study customer service or customer support organizations without knowledge of the larger socio-economic and political conditions in which they reside, because the focus on customer service is “based on the largely flawed, but powerful, neo-liberal concept of the sovereign consumer and free markets” (Sturdy 2001:3-5). This focus on market relations more broadly has been described as enterprise culture (Du Gay 2001, Keat & Abercrombie 1991, Miller & Rose 1995), and is focused on the ways that changing government regulations and commercial practices are evolving in keeping with neo-liberal understandings of the market. In this larger arena, the worker as consumer is but a small piece.

Perhaps most importantly for this dissertation, an analysis of customer-service work demonstrates the ways in which a neo-liberal discourse is making its appearance in the lives of individuals, weaving together their understanding of themselves as both individuals and workers, and further integrating them to the market. This trend has been called consumer culture, cult(ure) of the customer (Du Gay 1996, Du Gay & Salaman 1992), or customer service discourse (Sturdy 2001, Wray-Bliss 2001). Critical theorists argue that these types of roles are vital points of analysis because they exist at the boundary between production and

consumption (Ritzer & Stillman 2001); these roles in fact require that individuals internalize consumer culture and use that understanding to adequately perform their jobs (Du Gay 1996:6).

The chapter shows how technical systems build on the legacy of more overt forms of discipline. I argue that, despite a lagging interest in socio-technical systems, computing and communication technologies continue to transform work and our relationship to work in ways that remain to be explored. An analysis of these systems also allows a closer look at changing understandings of the self in relation to new technologies, a topic Escobar (1994) has indicated will be a critical contribution of Anthropology to Science, Technology, and Society studies. Specifically, as TechSoft began its transformation into a market-oriented corporation, I too was moving closer to the market via job changes. Both corporate and personal changes have resulted in systems becoming increasingly rationalized by a market-focused discourse. It is that evolution – as traced through the changing usage of two socio-technical systems – that is the subject of this chapter.

Socio-technical Systems

By the early 1920s, rapid growth in commercial interests like the railroad and life insurance industries accelerated the demand for consolidated, organized reporting of information beyond the early requirements of manufacturing (Yates 2000:130). There was also a growing interest in using these new tools for government projects like the census and the government's payroll. When punch

card technology emerged in 1924, it became the foundation for the infrastructure of the mainframe; this in turn laid the foundation for a new socio-technical system. No longer was the technology intended for one worker at one factory station or one desk, but multiple workers and machines worked individually to form a larger system, and workers were just one of the elements of that system (Greenbaum 1995, Hughes & Hughes 2000:2). With the propagation of office automation technologies and business process reengineering, the corporation itself had become a machine, and employees just one element of that machine. The era of the cyborg has arrived, with worker and technology inextricably linked.

The understanding of socio-technical systems that began with the mainframe came into full force in the military beginning in the early 1940s. Also known as Operations Research, it included both technical and organizational elements into one system, and it coincided with the “increasing deference of the public, the military, and the civil government to experts and expertise, especially to engineers, scientists, and managers who practiced systems sciences” (Hughes & Hughes 2000:8). Operations Research leveraged the technocratic idealism of the era, and reinforced the notion of professionalizing government. The systems management approach drew on many of the same arguments as scientific management had earlier (Aker 2000:192,203), and Norbert Weiner’s (1966) work in cybernetics helped to spread these ideas to other social and natural sciences (Hughes & Hughes 2000:12-13). Further, the growing involvement of Big Six accounting firms into management consulting activities

reinforced the connection between mathematic, scientific approaches to analyzing business.

Baba (1995a) states that our understanding of both technology and work are somewhat conflated because technology has so often been used to replace the activities of laboring humans. She traces the trend from technological determinism to what she calls 'sociotechnical systems theory,' where workers and technology need to be 'jointly optimized.' As with other criticisms of systems theory, Baba brings a critical social sciences voice to this discussion by arguing that the agency of the worker is not well accounted for in this analysis. She says we must recognize the 'creative frontier' as a critical element in work – technology analysis:

This frontier is only penetrable by the work force, since the actual capabilities and limitations of technology can be discovered only under real conditions of work ... Technology is thus doubly constructed, once by the elite, and once again by the work force. (1995a:137-38)

A deeper look at work practices in social context enables anthropologists to contribute to understanding these technologies, as well how and why workers may respond or resist.

Resistance to these technologies is complex and may take a multitude of forms (Wray-Bliss 2001), so we have to remain aware of the limitations of our own potentially narrow analytical perspective. In that sense, this work presents a unique problem; because I am analyzing these systems from the inside as an active participant, I am only able to describe the ways in which I personally

resisted the systems in which I was embedded. Though I touch on how other workers responded, at the time I was working in this setting I had not yet received authorization to formally pursue my research at TechSoft, so I do not have firsthand accounts of alternate responses to these systems.

Office Automation and Manufacturing Resource Planning

For much of the early 1900s, International Business Machines (IBM) was a dominant player in the computer industry. Known as 'Big Blue,' the company had been in business for a half a century, and had been establishing hardware standards trends since the 1940s. The company's dominance was achieved by targeting the burgeoning defense industry, and by its continual focus on improvements through a rigorous research and development program (Flamm 1988:82). By the early 1970s, it became clear that there was great potential to create standard software for businesses in the same way that IBM had standardized hardware for major corporations all over the world. Theorists differ as to why IBM failed to take advantage of this enormous opportunity. Greenbaum (1995:73) states that "IBM not only misjudged what its computers would and could be used for, but in emphasizing hardware, it left software, training, and work organization by the wayside." However, further research reveals that antitrust lawsuits against IBM resulted in the unbundling of software from hardware, and thus paved the way for the 'packaged software business' (Cortada 2000:203). The type of standardized software targeted at IBM's customer base came to be known as Manufacturing Resource Planning (MRP),

and later Enterprise Resource Planning (ERP) software as the technology made inroads into non-manufacturing industries.

ERP software helps companies to automate the functions of the workplace; it is supposed to simplify business processes by centralizing the company's data on one database or a grouping of tightly inter-related ones. By the 1980s, a whole industry of product experts and a set of methodologies emerged to support the business process change and implementation required for these complex products. TechSoft thus emerged during a period when corporations were just beginning to realize the role software could play in enabling standard industry processes, further increasing productivity and reducing expenses (including headcount). Research has demonstrated that companies "continue to possess features associated with the technology current at the time of their formation" (Burawoy 1979:243), so it is not surprising to find that ERP implementations form an integral part of socio-technical systems at TechSoft.

At TechSoft, management of employee time and productivity has followed the trend of corporations in general towards more centralized management and oversight, paired with a demand for substantial self-regulation by employees. For example in the U.S., employees have to scan their badge to pass through turnstiles and enter the building, but this is only used to verify identity and is not used for time reporting purposes. Instead, employees log their time into a shared Time Management System (TMS); based on the data from TMS, vacation and

sick time is deducted from employee quotas and (where applicable) time spent at customer sites is used for invoice purposes. In the IT Support Center, the Customer Support System (CSS) is used to track the resolution of internal technical support issues, and a digital phone system further enables detailed monitoring of employees by management. In combination with peer surveillance, a powerful system thus exists to regulate the minutia of daily activities for these employees.

The first part of this chapter is entitled *IT Trouble Tickets and Time*. It provides some information about IT organizations in context of TechSoft and the industry more broadly, and then goes on to explore how the use of the Customer Support System varies within the IT organization itself. The IT Support Center is a call center that provides technical support on all company-issued equipment to all TechSoft employees. Support Center employees are monitored and evaluated based on both CSS and a digital phone system. The use of both systems is a requirement, but experienced employees nonetheless find ways to resist the rigidity of the systems while still achieving key metrics. In contrast, the chapter also explores how the use of CSS varies for employees in Enterprise Network Services, who are deeply engrossed in the maintenance and improvement of TechSoft's technical infrastructure, and for whom 'customer' is secondary to the resolution of large-scale technical issues. The second portion of the chapter is entitled *Training and Time*, and traces the use of CSS into the Training organization. Providing technical support to instructors has a direct

impact on TechSoft's actual customers, and the Training System Specialists (TSSs) understand the critical role they play in supporting this revenue stream for TechSoft. CSS continues to be used to interact with IT and other technical teams, but the focus is on issue resolution and not system statistics. The section goes on to trace how, when management granted certain flexibility to the TSSs, the system was used to monitor and regulate performance in new ways. In general, this chapter explores how management establishes a variety of social and technical practices to ensure the productivity and complicity of the workforce, and how, in turn, employees leverage their network of personal relationships to improve the quality of their working lives.

IT Trouble Tickets and Time

At TechSoft and other large businesses, technical support for employees is centralized and standardized; routine activities like laptop maintenance, password resets and server refreshes do not require deep technical knowledge, because many of the tasks have been automated by more experienced or tenured Information Technology (IT) staff. There are external certification programs available to learn most of these skills, and training in trade school or some basic on-the-job training in the industry is often sufficient for entry-level roles. With the explosive growth of the high tech sector, there continues to be a great demand for engineering skills in the U.S. But as roles in the industry have become increasingly specialized, technical support staff often find themselves at the bottom of the hierarchy. At the same time, automation trends have made IT

an area of ongoing spending in most companies. As a result of these factors, justification of jobs through statistical reporting and discussions about outsourcing are both common. In these regards TechSoft is no exception, though the company's proprietary software is used to run the business, and the complexity of the product coupled with a steep learning curve limits how much work can be easily contracted out.

Information Technology (IT) departments are generally considered part of the operational cost of doing business. They are cost centers and not profit centers and as such, they are forced to regularly demonstrate (justify) their value to the corporation. This is certainly the case at TechSoft. As I mentioned in Chapter 2, at TechSoft, IT employees are paid from the subsidiary's payroll, but they are considered global employees; the 'heads' are counted globally. Thus, the costs for IT are not included in profitability calculations for the region; IT represents an operational expense for TechSoft Americas. Because the local management team regularly has to justify headcount, and because management is responsible to supervisors working remotely in Europe, performance metrics of people and systems permeates all aspects of life in the Information Technology group.

In the case of IT, 'the customer' is almost always an internal end user. IT staff rarely interacts face to face with the employees they support; while some requests for IT assistance are received via the company intranet or walk up, the majority of requests for help are received through the Support Center, a call

center which provides front line (or first level) support to employees with computer or other technical problems. Incoming calls are documented in a trouble ticket database called the Customer Support System (CSS). Issues are resolved during the initial phone call whenever possible, but when this is not the case the Support Center representative works with the caller to complete a detailed, predefined questionnaire that provides detailed information to the group who will ultimately resolve the issue.

For the TechSoft IT staff working on the front line, CSS is used to measure individual and team performance, including how many tickets are closed, and how long it takes to escalate, pass on, and/or resolve issues. All requests for help are logged as 'tickets' in a shared database and assigned a priority of Very High, High, Medium, or Service Request. Each of these degrees of urgency is associated with a Service Level Agreement (SLA), the acceptable timeframe for closing the ticket. Customer satisfaction in IT is measured by initial response time (IRT), number of tickets closed, and whether the ticket was closed in accordance with the SLA. These measures occasionally lead to games of 'hot potato,' where groups that are more cognizant of their metrics may move tickets just to look good statistically, but without providing any real service.

The records in the database are referred to as 'trouble tickets' or 'problem tickets,' 'tickets' for short. From the nomenclature alone, it is clear that there is a negative association if a user even calls with a problem. These tickets represent the call as it is transpiring, but then as the ticket is passed between groups, it

comes to represent the customer, and closing the ticket (addressing the technical issue) comes to mean satisfying the customer. Open issues may not be resolved quickly, as the majority of TechSoft employees work remotely and may not be easily accessible. Once this inefficiency was recognized, the Support Center objective became to resolve as many issues as possible during the initial phone call. The remaining tickets are often handled through an exchange in the database itself. Customers are thus actively constituted as participants in the system (Ritzer & Stillman 2001:113). Issues that are not resolved to employees' satisfaction may nonetheless be closed because outstanding tickets (especially those past SLA) have a negative impact on performance reporting of IT staff.

This is strikingly different from the approach at another support center documented by Pentland (1997). The representatives speak to all of their customers live, and before the ticket is closed and the call ends, there has to be a mutual agreement that the issue is resolved. But at TechSoft, by working with the ticket and not the user, the decision is left to IT staff who believe - because of their technocratic view and the way their performance is measured - that once the technical issue is resolved, their customer has been satisfied.

Support Center

I grab a packet of oatmeal and an orange in one hand, my backpack in the other, and bolt out the door. My shift starts in twenty-three minutes, and in the sixteen months I've been in the job, I've learned that it takes me eighteen minutes to get to work in light traffic. I'm usually a timely person, but the dread of

my work routine is making it harder and harder for me to get there on time. It's gotten to the point now that I hear phones ringing whether I'm in the office or not, and I've stopped answering the phone at home. Who wants to talk on the phone after answering seventy support calls a day?

The ride to work is fairly smooth, and when I arrive in the company parking lot, I circle around looking for parking; it's always a challenge at mid morning. There is no-one smoking at the back door that can let me in, so I have to park half a mile from the main entrance. I park and lock my car, and break into a light jog to get to the building. I trot through the lobby, and wave my arm between the elevator doors before they close completely, and step in as the doors re-open. When I arrive on the second floor, I cut through the kitchenette and grab hot water for my oatmeal. I drop my bag down at my desk, turn on the monitor of my desktop computer and log into the database, start up my laptop, put my headset on, and log in to the phone system. It's 9:59, and I switch into Available mode as the clock turns to 10:00.

My phone rings immediately and I pick it up. "This is Natalie, may I have your employee number please?" I can approximate their tenure with the company right away based on how high or low their employee number is. Employees with numbers higher than mine have been at TechSoft for even less time, and are usually the most time consuming to work with. I write the number down on my tracking sheet, key it in to the database to pull up the user's history, and ask "What can I help you with today?" While helping the user during the call,

I maximize user system restarts and other breaks in conversation to document as much as possible. When the call is complete at 10:07 and I have saved the ticket, I switch my phone into Unavailable and spend a few moments getting situated at my desk. Back into Available the phone rings almost right away. "This is Natalie, may I have your employee number please?"

In general, the nature of the work was such that I didn't have much of an opportunity to forge personal connections with other teammates. Cubicle assignments had been adjusted shortly before I started work at TechSoft, so that I could sit across the aisle from another new hire. We were also positioned next to experienced Support Center reps who could answer our steady flow of questions while still answering the required number of calls a day. Direct knowledge exchange with peers is a critical part of both learning and problem-solving in technical work (Orr 1996), and the preparation for our arrival demonstrated our boss' awareness of this. However, rapid-fire answering of phones was the core of our work activities, and lunchtime interaction was limited to the one other representative who had lunch scheduled at the same time as me. This was because we worked staggered shifts to provide 'follow the sun' support to all Americas offices.¹⁸ Lunch shifts were therefore also tightly scheduled and staggered, with only two reps allowed off the phone at a time. Between the intensity of the work itself and the nature of shift work, the

¹⁸ TechSoft is consolidating both IT and Customer Support call centers globally. The U.S. IT Support Center staff is being reduced by attrition (i.e. people that leave are not being replaced). Instead, the headcount is being transferred to a new Support Center in Ireland, which will be one hub in a global 'follow the sun' support program.

relationships I established were primarily with those co-workers on whom I was dependent for information and support.

New hires were told laughingly by more senior Support Center staff that that we were 'drinking from the firehose,' but that things would get easier over time. When I first started, I was answering nearly fifty calls a day, asking for help more than half the time, and completely without energy to do anything else when I was not at work. While I worked in the Support Center, every couple of weeks I documented my time in the Time Management System (TMS), consistently charging my forty-hour week to the cost center. And about once every three months I also documented any night or weekend work during my week of emergency on-call support. Between the odd work hours and the return to entry-level work, the first few months were very difficult.

I was nonetheless very excited and proud to be working for such a well-known, locally based company. Many of my friends and family had not heard of TechSoft, and I took it upon myself to educate them. Perhaps it was a combination of pride and a need to belong that resulted in a desire for TechSoft gear at the time. Polo shirts. Jackets. Backpacks. Baseball hats. The acquisition of TechSoft clothing and accessories was a sort of hobby for me and my colleagues. At the high of the dot-com boom, many employees were proud to be able to wear a different TechSoft shirt every working day of the month. And it is likely that the company benefited from additional visibility and brand-name recognition as we distributed logo-covered gear to our friends and family. While I

worked in IT, I occasionally managed to get the dregs of backpacks or hats from some conference. At the time, for me the gear lust was not about having something with the company logo on it. It was more about the acquisition itself, because most of the shirts and jackets were extra or extra-extra large, and I often gave the items away. While some of my peers were happy to collect and wear the clothing, to me the new items indicated superior service provided, or new alliances forged. I must have realized that people who could get gear had networks, and people with networks were going places. But it was not until I moved out of IT and into other roles within the company that my network really developed.

While I was building those relationships and getting up to speed, I frequently had lunch with Leila, a woman who had started on the same day as I did. We had been through the Human Resources new hire process together, and had gotten to know each other then. As we got started in our new jobs, we shared tips and tricks, built email folders and binders of resource information, and commiserated about the challenges of retaining all the new information we were given. Once our training period was over, however, we moved to different shifts, and the only time we had to connect was during lulls in the call volume, or at rare moments when we could use knowledge exchange as an excuse to chat.

While I had worked in technical support roles in the past, the work had been much more informal. Gradually I learned how to manage my activities at TechSoft in relation to all the different ways I was being monitored. On average,

I was expected to answer between fifty to seventy calls per day, and I was expected to resolve the large majority of the calls I answered. Each call had to be documented by creating or updating a CSS ticket. At the same time, I was also being measured through reports from the phone system that showed how much of time on the phone was spent in Available mode, how many calls I answered and the average length of those calls, whether I kept callers on Hold and for how long, and the amount of time I remained in Unavailable mode between calls. The number of CSS tickets created was also compared to phone statistics to ensure I was documenting the calls I received.

As TechSoft grew in size the volume of calls increased and some additional staff was added to the Support Center. However, new employees called the Support Center more often, and it was more time-consuming to support them. The need for technical support thus outpaced the ability to justify additional staff at the Support Center. In order to cope with the increased volume, our work became increasingly routine, and we were encouraged to escalate the more complex, time-consuming (and interesting) problems to other groups in IT for resolution.¹⁹ During this period, the management team hired a full time staff member to report on our activities. Both CSS and phone system data were tracked weekly and monthly. Our activities were depicted with bar graphs that showed the statistics of each rep side by side, to provide easy

¹⁹ During this period, there were some debates as to whether the organization's name should be changed from 'IT Support Center' to 'IT Call Center' to reflect this change. However, our management team ultimately decided that they did not want to draw attention to these changes in our level of service, so the group's name remained the same.

comparison between peers. Call volume per shift was monitored to ensure that the Center was properly staffed, and to assess whether other groups in IT were generating a disproportionate volume of work for the Support Center. For example, when there were major network or system outages or system changes not properly communicated to the employee base, the Support Center staff bore the brunt of the impact through massive spikes in call volume. Support Center management used the data on call and ticket volume to raise awareness of the team responsible for the outage. These reports were also emailed to all Support Center staff and IT management and posted to a bulletin board in plain view of the entire IT organization. Consolidated reports by employee were also used as a focal point of discussion during the twice-yearly performance review process.

Surprisingly, research has shown that making workers visibly accountable to themselves and to their colleagues through these types of systems is generally received in a positive manner, largely because it gives them a feeling of control:

the technology is individualizing or has individualizing effects. That is to say, workers are now visibly responsible as individuals for sets of specified tasks. In turn, their positive responses to the new technology are based upon the fact that as individuals they can control their own output. (Austrin 1994:202)

At the same time, as workers become more autonomous, managing their work relative to what they see their peers doing. By making work a competitive exercise relative to co-workers, self-management emerges as a complementary form of discipline.

When I started at the Support Center, database and phone system reporting were relatively informal. Representatives with seniority held a certain amount of prestige because they were able to provide support to customers that were deep and wide, while at the same time helping their more junior peers resolve issues. But as the systems and reporting became increasingly formalized, the dynamics of the group changed. Once a week when the reports were posted, the reps gathered around the bulletin board to see the results of their labor. Management consistently recognized those individuals who answered and resolved the most calls, since that was the behavior they were trying to reinforce. Some of the more senior representatives – who were at one point appreciated for their willingness to be interrupted with other people’s questions and problems – came to be resented because they were not answering as many calls. In some cases, they were even subject to disciplinary action. In an interesting essay entitled “Foucault and Databases”, Mark Poster argues that databases impose categorizations and assumptions about the data they house (Poster 1990:86,89). Poster’s argument is that this form of domination is linguistic in nature, and his admonition is similar to Ian Hacking’s (1986:79) in his essay entitled “Making up People,” in which he argues that categories and the people in them “emerged hand in hand.” Hacking and Poster both remind us to be attentive to categories and the power they wield, as people are ultimately shaped by and in response to imposed categories. Through the new reporting system ‘good’ employees of the Support Center came to be

narrowly defined as those who answered the largest volume of calls, and subsequently closed the resulting tickets. There was no way to document whether more than one rep had participated in closing a ticket, and collaboration was not a measurable with the new reporting system. Suddenly, individuals who had been appreciated as team players were transformed into underperformers. With the new systems in place, a variety of other changes also resulted, including an increase in peer surveillance and a decrease in collaboration. Over time, as the call center reps learned to 'work the system,' but working relationships were nonetheless transformed by the new reporting system and the way it defined good work.

IT Second Level Support

During the course of their phone call with a customer, the Support Center representative completes the ticket and submits it to a Resource Allocation Specialist (RAS). The RAS confirms the completeness of the data and routes the ticket to the appropriate group in IT or other organizations. As mentioned previously, there is a very distinct hierarchy in IT in which the most senior, prestigious, well-paid, and desirable jobs are those furthest from IT's customer base. This brief section describes some of the groups within IT that provide advanced technical support for issues that cannot be resolved by Support Center representatives. These second- and third-level support teams are not always part of IT, but they agree to manage issues through the common usage of CSS. Ward (1990) argues that it is important to assess the methods of distribution as

much as production, so it is interesting to note that in the past Support Center reps used to create their own tickets and distribute them for advanced support. As call volume increased and the Support Center reps' role was narrowed, the Resource Allocation Specialists were put in place. This increased the layers of hierarchy in the Support Center and gave an elite few the authority to distribute the tickets to advanced support.

CSS tickets are database entries that thus become boundary objects (Wenger 1998:105-8), allowing the IT Support Center staff to be a hub for IT activities without having deep knowledge of any of the teams' activities. IT staff and the supporting ecosystem of second level support groups thereby share responsibility for supporting users in an efficient and mostly impersonal manner. Although this system is in most cases effective, there are times when a caller's issues do not fit neatly into one department's responsibilities. In these cases the ticket may bounce from group to group with no personalized attention, to the mounting frustration of the individual waiting for resolution. The reality is that the factory-like quality of service is disengaging both for the customers and the people who serve them. Perhaps most importantly for the long term health, growth, and learning of employees, Kuhn (1996) has demonstrated that this kind of technology-mediated support serves to reduce shared learning, collaboration, and ultimately the support of the employees that use it.

Field Support

The Field Support team is dispersed in TechSoft offices across the country to provide local support, and there is one team for each building at the company headquarters. In the first year of the new headquarters, all of the IT staff had cubicles on the ground floor of the main building. As TechSoft grew, most of the Field Support staff was relocated to one of the buildings most distant from the main building. The remaining Field Support members share eight cubicles, and their desks are for the most part cluttered with laptops or pieces of computer systems, cables, papers, and family photos.

In contrast to work punctuated by ringing phones in the Support Center, the rhythm of the Field Support workday is dictated by routine maintenance of local equipment, and by the regular flow of tickets from the Support Center. The Field Support team also receives a number of requests via walk up and phone calls to their desk. Employees develop personal relationships with their local IT staff, so in the cases where someone stops by or calls for assistance, the practice of first logging a CSS ticket is not consistently enforced. The headquarters team has a small conference room and a locked storage space that has ample workspace for several employees and a large amount of equipment, but no windows. Field Support teams across the country have one or more rooms that require special access, which they use to house equipment, work on projects, and occasionally to escape the disruptions of end user requests via phone and personal visit.

As with Support Center work, the Field Support team completes tasks that have a Service Level Agreement (SLA), or a standard amount of time it will take to resolve the issue. For example, routine installation or updating software is usually done with a set of standard scripts. The scripts are written by more senior staff and require minimal monitoring, so Field Support may work on several laptops at once, without undertaking any complex problem-solving. However, there are plenty of non-standardized tasks that do not have a predetermined SLA. Because their activities are not quite as predictable as those of the Support Center staff, in general the work is not quite as production oriented. The team is nonetheless supposed to log tickets for all of their activities to demonstrate their productivity both to their management and the organization as a whole. However, because the majority of these employees work in remote locations with minimal supervision, their activities are not monitored or controlled in the same way as those of the Support Center; their physical and psychological distance from the core presents an ongoing challenge for management.

Enterprise Network Services

The network team works in the furthest building from headquarters, along with the rest of the IT organization (excepting Field Support). There has been very little turnover in the group in the past five years, though there have been some new additions, including one woman – the first in the network team in my years at TechSoft. As with many of the employees who work in the distant buildings on campus, the team seems to prefer the food and camaraderie of the

cafeteria in the main building, and they often make the trek across campus together and eat lunch as a group at one large table.

The network team is responsible for ensuring stable, secure connections that link the U.S. offices to each other, to the offices around the world, and to the Internet. In addition, they are responsible for the services that allow employees to connect to the company when they are working remotely, either from home, from a hotel, or from a customer location. As the Internet grew in popularity, TechSoft was also growing in size and had to support more and more employees working remotely. When stable Internet Service Providers (ISPs) emerged TechSoft began to outsource these services. As a result, the network team focused their energies on corporate-level connectivity and security, interacting directly with vendors rather than end users internally.

If an employee has a question or a problem with their remote access, they call the Support Center and a representative walks them through a variety of processes to ensure that their software and hardware are properly configured. In most cases, individual issues are addressed at this level, and tickets in the database therefore do not need to be forwarded to the network team's queue for resolution. If there is a major outage that results in a substantial number of phone calls to the Support Center, the network team is informed and an announcement recorded on the Support Center's voicemail routing system. These activities are intended to reduce the number of incoming calls and tickets. As a result of these processes, the network team does not receive the volume of

tickets that are received in other parts of the IT organization, and they are not held accountable to CSS statistics a primary measure of their work achievements.

From Gear Networks to Job Networks

In her book *Life on the Screen*, Sherry Turkle (1995:59) talks about the importance of bricolage (Lévi-Strauss 1962) or tinkering – an experimental, intuitive way of gaining an understanding and mastery of computers. In most groups within IT, personal computers and the related technologies are something to be learned in their own right, not simply as a tool to complete another task. In fact, this ability becomes one of the essential skills of the job and is part of how status is achieved between peers within these groups. For senior management, this peer respect is as essential an aspect of leadership as the ability to satisfy customers. As a result, in almost all cases, team leads and supervisors come from the ranks of the IT team itself. These skills transfer easily outside of TechSoft, though relative to similar jobs in the industry the pay and benefits at TechSoft are competitive, which discourages employees from leaving for other companies.

When I was initially hired in the Support Center, the support we provided was deep and wide. Five years ago when TechSoft was still growing, staff who made the transition out of the Center frequently moved into high-paying, technical jobs in internal system administration or Consulting. There was more room for growth out of the Support Center than Field Support for a number of

reasons. At that time, in the tradition of an engineering culture, knowledge of the company's software was a prerequisite for career growth and Support Center representatives had more exposure to the product than Field Support, who primarily provided laptop support. In addition, representatives on the phones have contact with the breadth of the TechSoft population, and so have the opportunity to develop a large, informal network.

As the IT group as a whole grew in size, management sought ways to keep the growth in check. During an organizational transition, a new manager who had extensive experience managing call centers was put in charge of the Support Center. The team focus shifted from complex problem solving to a focus on call volume - the production work I described above. Although the industry average in such jobs is not more than three to six months, an eighteen-month requirement was put in place before a move to another group was allowed. As I was nearing the end of my eighteen-month commitment to the group, I began to look for ways to make a move.

As the day progresses I work my way onto my second tracking sheet, and we reach a daily lull in the call volume as the first shifters pack up to go home. I am able to sit in Wait mode for short periods of time between calls. I realize I am approaching the daily quota of calls, so I occasionally shift the phone to Unavailable mode and catch up on personal email, chat with colleagues, work on my web page. I am always cognizant to err on the side of Available, as both the

phone statistics and those of the database will be used to measure my performance and determine my bonus at the end of the year.

I also take advantage of the time to interact a bit more with the callers I'm supporting, asking about the work they do, how they arrived at their current job, and so on. I stretch out the time on the phone and make it more social, and I use the time to learn more about the company and future job prospects. I am speaking to woman named Florence for the second time this week. We've forged a connection in part because of our French heritage. I am helping her understand how to work around the network configuration on her TechSoft-issued computer, so that her daughter who is home from college on vacation can check her email via the TechSoft network. As her computer restarts and we chat, she tells me about the Curriculum Development group where she is doing some spot consulting, and mentions that there is a permanent position available. The Curriculum group is part of the Training & Education organization, where courses are developed and staff provide second-level technical support to instructors teaching classes to TechSoft customers.

Later that afternoon, I send Florence a follow up email, provide her detailed instructions about the configuration changes for her daughter's email access, and ask her for the contact name in the Curriculum group. At TechSoft, the immediate supervisor has to approve all interviews, so after placing a formal request to interview and receiving approval, I interviewed for the position and was eventually hired.

Training and Time

The Training and Education organization delivers technical product training to TechSoft customers, partners, and employees.²⁰ The group is global and most of the training materials are created at global headquarters; regional teams are primarily responsible for generating revenue through the delivery of classes and workshops. This division of responsibility between global and local occasionally results in tension because the majority of courses are developed globally, and students in different regions may have different demands or expectations about what constitutes interesting or beneficial course structure and exercises.

Customer training is a substantial source of revenue for the regional organization. The presence of the local management structure reinforces this; the Americas training organization has at its head a Senior Vice President (SVP) who resides at U.S. headquarters. She is one of two female SVPs at TechSoft America – the other ten to fifteen SVPs are men. While she reports to the Americas CEO, she also has dotted-line accountability to her counterpart at global headquarters. For the most part, her organization does not create the courses they teach, but she and her management team are responsible for optimizing facilities, course selection, location, timing, and instructor performance throughout the Americas region. Most of this is done with the help of TechSoft software; all resources – human and otherwise – are tracked in the system and

²⁰ TechSoft also has an organization called TechSoft University, which provides non-technical employee training. That group is run by Human Resources.

allocated to courses as needed. Information on the seniority, skills, and location of instructors is maintained along with information about what types of servers are required for which classes and room size in each training facility. Instructors, servers, and classrooms are assigned as resources to the courses. Instructors are given their schedule a quarter in advance, and server allocations are allocated a week prior to the course. Course evaluations are administered electronically as well, twice for one-week classes and once for shorter classes; these evaluations are used proactively to manage all aspects of the customer's training experience. Feedback is immediately available to instructors (without customer names) and to the management team, and the information is used to make dynamic adjustments in everything from classroom temperature to course materials to instructors.

When instructors have problems with the classroom equipment or the training systems, they call the Support Center and choose a special option on the phone menu for training and demo issues. Of all the calls to the Support Center, those from instructors and from presales typically require the most detailed knowledge of the TechSoft product, and a deep understanding of the infrastructure and the business processes that support this critical aspect of the business. These calls are bumped to the front of the phone queue and answered by the most skilled representatives. Because of the potential impact on revenue, all classroom problems of this nature are considered urgent; it is thus the

responsibility of IT to resolve these issues as quickly as possible, with the assistance of other teams as needed.

The most critical problems are generally those that occur on the training systems themselves. Depending on the nature of the problem, the issue may just affect one class, or all classes using the server. All such cases move quickly to second level support, where the most experienced, senior IT staff work closely with Training Systems Specialists to resolve critical classroom systems issues.

Training System Specialists

I knew the Training landscape and business processes well, because I had supported them when I worked in IT. But because I knew very little about TechSoft software I was paired with another TSS who had extensive knowledge of the product. She taught me the specifics of the systems and software that would now be my responsibility. Early in my training I was told how much each customer paid for a class, and it was clear that the revenue impact of a dissatisfied customer could rest on my shoulders. I became increasingly aware of TechSoft customers, and of an internal hierarchy based on revenue. So while I had more freedom to manage and prioritize my own work to some degree, the fact that I supported revenue-generating activities created a personalized urgency around my job responsibilities. My mentor also taught me about my responsibilities to my peer group and the instructors I supported, as well as quite a bit about the technology itself. Her reward was to leave the daily support tasks to me; as I became more competent, this left her more time to develop deep

technical knowledge and work more closely with instructors and product experts to develop new curricula.

As a TSS, I found myself using many of the same systems to track my activities as I had in IT. The big difference was that these were not the primary way I was being managed. For example, my phone number was not part of a digitized system with calls routed to me. Rather, individuals who needed my support called me directly. The phone rang less often, and the support I provided was much more specialized. And while I still needed to remain accessible by phone, responding to phone inquiries comprised only a small portion of my daily work. I spent the majority of my day working on projects for specific courses in my curriculum area, and my activities and deadlines were established dynamically in collaboration with my immediate supervisor.

I worked on multiple courses every day, and each course was billed to a different internal account in the Time Management System (TMS). Because the time I spent was so varied, I began updating TMS almost every day to ensure it was accurate. This became increasingly important as my expertise grew, and I did more and more work on preparation of global courses. In these cases, my time was billed to global accounts, and thus the U.S. had me at their disposal without having to pay for my time. This was an ideal situation for the U.S. organization, and it increased my job security in the eyes of local management, because I was essentially a free resource, being paid for out of global funds. At the same time, I found it challenging to balance global expectations and timelines

against local demands, and I was consistently working more than forty hours a week. I don't recall calling in sick while working in this job, because it could be done from home, and it was specialized enough that no-one could have done it for me. Not working was simply not an option. In addition, TechSoft has no formal limit on the annual number of sick days, which has been shown to decrease the likelihood of employees calling out sick from work. Once a month, the head of the department sent a TMS report out to the entire Curriculum group, and anyone who had billed less than forty hours of work was noted in red; time over forty hours was not considered remarkable and was not questioned. In contrast to the Support Center, tracking our time to this way was intended to secure ongoing global funding and headcount rather than to regulate our work activity.

Of the four people working in my curriculum area, my predecessor and I were the only ones that lived near headquarters. The other two members of our team (including our supervisor) lived in different U.S. time zones. So, being available was not determined by our presence in the office, but rather by our accessibility by email and phone. In IT, the only time I worked at home was to provide after hours support when I was on call, so I thought that telecommuting was a huge luxury. In my new role, the company paid for high speed Internet access so that I could work at home on Fridays and, as I quickly learned, on weekends well.

I well remember the feelings I had that Sunday afternoon, getting the Training systems ready on my own for the first time. I could have waited until Monday, as most of the experienced Training Systems Specialists (TSS) did, but I wanted to leave time to correct any mistakes, and to ask for the help that I knew I would need in the course of the evening. I also wanted to ensure that I would have as little as possible to do on Monday morning, so that I would have time to address all the other unpredictable questions that would be escalated to me as classes began throughout the in U.S., Canada, and Latin America. My high speed connection had not yet been installed, and complex, unfamiliar screens flashed slowly in front of me, the process dreadfully prolonged because of the slow connection. I put my hands on my stomach, feeling sick with anxiety and the responsibility resting on my shoulders.

The curriculum area that I worked in provided a friendly and personal level of service to the instructors we supported, which only served to increase my feelings of anxiety. Whenever possible, we circumvented the Support Center process, gave instructors our direct contact information, and rarely logged tickets in the shared 'trouble ticket' database except in cases where we needed the help of IT. Over time, I formed my own relationships with the instructors I supported. Problems varied widely from password resets to major product 'bugs' that required escalation to a software developer. Because my support of the instructors was grounded in a personal relationship, there was little to no monitoring of my work activities during this period. I worked independently, and

asked for help from my management team only in rare instances where I was unclear about my priorities or the extent of the support I should provide.

Thus, the stress I felt on that first Sunday was infinitely more personal than taking Training-related calls when I worked in IT Support. I recall working the Support Center phones on Monday mornings, talking with panicked instructors. They would be standing in front of a classroom of students, trying to keep order in the classroom while we searched desperately for resolution to their problems. In cases where I was unable to resolve their issue, I routed a detailed ticket and paged a TSS. When I got those tickets as a TSS, there was nothing but agony on both ends of the phone until the technical issues were resolved and class could resume. In my new role, my relationship to the TechSoft customer and to my customer (the instructor) was abundantly clear to me – much more so that it had ever been when I worked in the IT Support Center.

That weekend and every weekend for nearly a year, I ran the programs that I would later learn to write. These programs were used to populate the training systems with data for the instructor and students. While I was not thrilled with the schedule, I was please to have a technical position that was not in the IT organization. In fact, I considered myself very lucky, because second-level support jobs were hard to come by for someone with my limited experience. I had the opportunity to work independently, to work at home occasionally, and to learn TechSoft's product, which at the time I believed was an absolute must for

career growth internally. Perhaps most importantly, I had escaped IT into an organization that was directly supporting revenue generation.

Trading Tickets for Time

Eventually the woman training and mentoring me moved on to a new position, and I became responsible for supporting the entire curriculum area on my own, with the third level support available to me as needed. With this close connection gone, I got to know the other Training Systems Specialists better. While the classrooms are in the main headquarters building, the TSSs sat together in a remote building on campus. It was often easier to take a quick break together in our cafeteria than it was to make the fifteen-minute trek to the headquarters building. Over time, we realized that we shared the frustration about the demands of inconsiderate instructors and the lack of compensation for our weekend work, and we began to talk with each other and our managers about reclaiming our weekend time. Eventually we proposed to work at home on Mondays and Fridays. We rationalized that, by avoiding the commute on Mondays, we would be able to run the data-loading programs and provide support very early on Monday mornings. We would improve our quality of life by not working weekends, while at the same time sustaining the level of support we provided. Fridays were generally quiet in the Training group, and we proposed to use the time at home to work on projects or other activities that required less interaction with the instructors, like curriculum development and system testing.

The Curriculum Development management team approved our proposal, and so with the other TSSs I stopped preparing the classroom systems on Saturday nights and Sundays. I conducted a series of workshops to teach the instructors how to run the programs themselves, and I also walked many of them through the process in test systems. I provided instructional materials, and also provided them with their system assignments and program names for the first several months, until they were comfortable enough to acquire all the necessary information on their own. The new agreement enabled me to roll out of bed on Mondays and begin preparing the systems at six in the morning, which, with my new level of technical knowledge still afforded me plenty of time to address systems issues with IT and other supporting organizations before classes began at nine o'clock Eastern. After nearly a year of weekend work, this was a relief.

However, as a result of our request our management team became more familiar with our work and the type of support we were providing. They developed concerns about how these changes would impact the service and the perception of service being provided to instructors. In order to better understand our activities, they asked to use CSS (IT's trouble ticket database) in earnest, and to force the instructors we were supporting to do the same. We were asked to take turns carrying a pager on a rotating basis, a request I despised since it harkened back to the invasions of privacy I felt during my days in IT. Because we were a small team, I was responsible for the pager one week out of six. During that time it was my responsibility to ensure that Very High priority tickets

logged in the database were immediately addressed by the appropriate TSS. However, the personal approach that had been fostered with the instructors in my curriculum area by me and by my predecessor made it virtually impossible to insist on the use of CSS. While I tried the requests were mostly ignored, and I quickly realized I would spend more time enforcing the new policy than just working around it. Because I did not use the database, I was resentful of the pager duty demands, as it required me to maintain my own escalation processes and those of the other TSSs as well. In retrospect, it is easy to recognize that I had different understandings of customer service than the definitions provided by management (Wray-Bliss 2001:43), and I used my indignation to resist the depersonalization of my work (Sturdy 2001:10). I had seen the move from IT to the training organization as a way to move away from being monitored through systems, and I knew that working at home with minimal supervision was a privilege, but one that I believed I had earned. I wanted to work in an environment where I was trusted to use my work ethic and energy to do the best possible job, and I resented the assumption that working remotely had resulted in some degree of suspicion about the quality and quantity of our work. Being forced to carry a pager (as I had in IT) felt like an enormous step backwards for me.

The other Training Systems Specialists supported curriculum that was standard worldwide, but the courses I supported had requirements specific to each region. At the same time, as my technical knowledge grew I became

responsible for solving more and more complex problems. Initially Mondays and Fridays at home had afforded me a better work life balance. But quickly the time that I would have spent commuting was absorbed by more complex curriculum development projects, as the quiet time at home afforded me time uninterrupted by collegial interaction. Despite the many hours I logged in the time management system, it was not possible to justify another resource.

As late as 1999 TechSoft America had a robust Curriculum Development group that modified courses to meet U.S. customer requirements, though translation was always done through a centralized group in Europe. There were six Training System Specialists who were in many ways marginalized because their primary responsibility – supporting the data for training courses – fell in contested, undesirable space between Curriculum Development and IT. This permitted a great deal of freedom as long as we did not draw attention to ourselves as a group requiring investigation or regulation. Over time, as TechSoft Americas' profitability decreased, the Curriculum Development group became smaller and smaller, and was eventually dissolved. During this period I leveraged my extended network inside TechSoft to find a position where I would be closer to the core of TechSoft America's revenue-generating responsibilities. Perhaps my growing awareness of the importance of the market led me to that decision; I remember hoping the change would permit me to weather the imminent economic downturn while remaining employed at TechSoft. This awareness of the centrality of the market came in part from my growing

understanding that there was an internal hierarchy at TechSoft based on direct contact with TechSoft customers. But there was also a massive corporate push to raise market awareness about TechSoft and vice versa, a topic that will be discussed in detail in Chapter 5.

It has been interesting (and at times painful) to experience how the same systems could be used so differently, or circumvented, or supplemented by different technologies. System use is never static or universally applied; among other factors the type of work, distance from the core, relationship to the customer, or changes in market appear to have an impact on technology use. The longitudinal, deeply participatory nature of this study (across populations) has allowed a much more nuanced understanding of how a socio-technical system evolves in response to such a wide variety of factors. It is also clear that, while distance from the office may give an appearance of freedom, such distance will inevitably result in new forms of discipline, often more subtle and totalizing than the previous ones. While remotely applied discipline is not exercised on the physical body, that doesn't mean there is no physiological impact; customer service work is emotional labor and brings different kinds of aches and pains. Resistance has rarely been talked about in terms of emotion, but in fact much work remains to be done to talk about the ways in which political and emotional responses to work are intertwined (Sturdy & Fineman 2001:136).

This chapter has demonstrated some of the ways in which current socio-technical systems build on the legacy of earlier technologies. It has also shown

how important it is to analyze how teams (and even individuals within teams) use socio-technical systems in different ways. This chapter has also explored how system use evolves in response to changes in the business, and the role of personal networks within and beyond the boundaries of socio-technical systems. This chapter has also demonstrated that mechanisms of control and rhetoric about the customer are especially bureaucratic and ritualized for those employees that are removed from the market (Du Gay & Salaman 1992:620); the contrast will become apparent in Chapter 5, which provides some additional detail about the ways in which revenue-generating employees are managed. The current chapter has been focused primarily on employees as producers, which neglects the consumptive aspects of work (Ritzer & Stillman 2001, Sturdy 2001:12). Chapter 5 seeks to address this gap by demonstrating the ways that TechSoft employees are constituted as both producers and consumers in their daily work. This transpires largely through a growing discourse about the market and the consumer in the high tech industry, and is echoed in corporate communications and human resource practices at TechSoft.

CHAPTER 4 THE ANT FARM

Overview

As their communities are dispersed or dis-located, humans seek to coalesce in new ways, whether physical or virtual. These processes must be described within the broader context of the power relations which shape them (Gupta 2003:322). To that end, this chapter provides some history of the U.S. subsidiary of TechSoft, and describes the timing and rationale of decisions surrounding the construction of an Americas headquarters building. Selection of the geographic location and construction site, building design, and even decisions about the interior were made in collaboration with executives at the parent company. The decisions that were made reflect TechSoft's core and periphery relations, but they also reflect the period in U.S. industry. Nearly ten years later, this chapter describes the space and how it is used today. However, the main purpose of this chapter is "not simply the building of buildings, but more significantly, the building of the social through buildings" (Burrell & Dale 2003:177); that is, how the use of space reflects corporate priorities.

A Brief History of U.S. Workspaces

Workspaces in the United States have reflected not simply the available materials, but also the social norms and expectations of the period. In the late 1800s, corporate buildings were still made from masonry, so buildings were short by today's standards (fifteen stories). These buildings often had a central court

with a skylight and galleries on every level, because the use of natural light reduced the need for gas, which was both expensive and a fire hazard. The building structure made the corporate hierarchy evident, and provided a clear presentation outwards as well, with reception on the ground floor. Places like Metropolitan Life employed more women than men, but women had a limited career trajectory since it was generally accepted that their primary focus was ultimately on family and not on career. Women generally sat at shared tables in a large open space, and men sat at individual desks. Only male clerks had phones, and men and women traveled through the building via separate entrances and different sets of stairs (Zunz 1990:112). During this period, there was even a journal dedicated to explaining how to make decisions about the accessibility and placement of corporate departments. Filing areas were handled by women, and needed to be publicly accessible. Accounting on the other hand, was handled primarily by male clerks, and was to be placed in private offices (Zunz 1990:110).

Construction of corporate headquarters during this period were characterized by the beginnings of the shift from manufacturing to a services economy, and marked “the ascendancy of the financial and administrative functions over the technical and productive” (Zunz 1990:112). By the end of World War II, headquarters unified the worlds of production and consumption through headquarters space targeted at sales and marketing rather than manufacturing; “such postwar buildings reflect back the client’s desires through

the growing emphasis on marketing and image-creation” (Burrell & Dale 2003:189-90).

During the early 1990s in the U.S., industry focused on the need to harness individual innovation and team collaboration to ensure corporate success. There was a concern that existing work environments didn't make this kind of flexibility possible.

After having downsized, reengineered, customer-focused, shattered old hierarchical structures and reorganized work around teams – all the things that were supposed to make companies more responsive and competitive – corporations ... aren't getting the results they expected. They are, quite literally, running into walls, because the new work styles don't work in buildings designed for the old top-down corporation. (Hamilton et al 1996)

The redesign of corporate workspace was a subject of popular press articles in trend-following magazines like *Fast Company* and *Wired*. The intense focus on these issues is further evidenced by groups like the R&D Workplace Performance Consortium, which was created by select high tech firms in Silicon Valley exclusively to focus on issues of workplace design and employee productivity. From all quarters, a host of experts converged to help design and configure corporate space in accordance with new corporate values and priorities. In particular consultants with a strong knowledge of human behavior and organization (Hamilton et al 1996) were engaged, including anthropologists.

In 1995, a survey showed that these Alternative Workplace Strategies (AWS) were being implemented in varying degrees by 83% of companies (Hamilton et al 1996). Whether it was simply issuing laptops instead of desktops

to enable employees to work at home, or whether it was more radical changes like the formal introduction of telecommuting, the cost savings (particularly from a facilities perspective) made it easy to justify, though cost of the virtual infrastructure was not always completely understood (Berger 1999). These alternative strategies included services like 'hoteling,' which involves giving workers laptops, cell phones, and no assigned workspace, while providing them the ability to book offices and or conference rooms if they are on site. Other AWS services included a concierge to help with dry-cleaning and other outsource-able family chores. Services like the concierge were targeted at families with two working parents, and were rationalized because they enabled employees to commit more time to work. In general, new spaces were supposed to demonstrate the firm's commitment to fun and overall health and well-being, as in the following article:

Over the last several years, countless employees have plunged into the new economy looking for a friendlier and more satisfying workplace. Table hockey, foosball and pets at work were hallmarks of the new readiness to mix work and play. These changes, along with coffee bars and casual Fridays, greeted the young, eager workforce as they performed jobs that they would have never had the change to do in the old economy. (Rush 2001:1)

Management was sending the message that the company would help employees maintain a good work-life balance. At the same time, they sought to blur the boundaries between work and play – both to infuse the workplace with creative energy and to encourage employees to stay at the office. The discourse of workplace and commitment to work is filled with metaphors of home and family,

which Foucault outlines in an essay entitled “Governmentality”; he describes how ensuring the economy of the state begins with “exercising towards its inhabitants ... a form of surveillance and control as attentive as that of the head of a family over his household and his goods” (1997:207).

And in fact, the ‘new’ work environments and mores of the dot-com era were simply ways to further optimize work and create a more totalizing form of discipline through workspace. Take for example this essay:

The workplace is not just about cubes or offices. It is about the appropriate combinations of space, protocols, technology and tools that support the nature of work and keep employees productive, satisfied and loyal. (Rice & Mitchell-Ketzes 2002)

In fact, the messages of community and increased productivity are interwoven in all discussions of space. Research efforts on corporate space focused on work practices and social interaction, and how these might be impacted by the corporate architecture; very conscious design decisions were made as a result. Kitchenettes provide a service and even free drinks and snacks to employees, and intimate seating areas enable employees to have impromptu meetings when they encounter each other. For example, elevators were discouraged because they shut down conversation, and so elevators were replaced with stairs or escalators because that was thought to foster dialogue between employees (Hamilton et al 1996:3). At the same time, the open space encourages both peer surveillance and self-regulation by employees, who, because of their visibility, are discouraged from gossiping or attending to personal tasks at their desks. In

other words, regardless of its design, the workspace where the working subject resides is a place of discipline. And while these mechanisms of control may take on some new forms in a computer-mediated context, the corporate objectives remain very much the same.

The Ant Farm

Near the conclusion of my dissertation research, I met with a former TechSoft executive, a gentleman whom I'll call Martin, who was actively involved in decisions about the headquarters location and design. The material in the following section is based largely on my meeting with him, as well as the related stories that appeared in newspapers and journals as the headquarters building neared completion.

In the late 1980s, TechSoft was more than ten years old and was ready to grow beyond the local market it had established for itself in Europe. And so global TechSoft executives sent four senior engineers to the United States, to assess the possibility of collaborating on some new software development with a consulting firm and some prospective customers in the Rust Belt. After a bumpy start in Chicago, the small team used some personal relationships to locate and borrow some temporary office space on the Eastern seaboard, though not in an area that was particularly known for high tech. As the company gained some success in the region, the small team grew quite rapidly. By the early 1990s the market for business software had exploded, in part because of the overall demand for office automation and efficiency through computing technology.

During the late 1990s, the growth of TechSoft was also spurred by widespread fears about 'Y2K.' These were concerns that outdated 'legacy' systems would conflate data from 1900 with data from 2000 since the design of many software programs had not considered the need for four digits in the year field.

At this point in TechSoft history, there was still some question about where the North American headquarters for TechSoft should be. There was some desire on the part of the founders and the governing Board to establish a presence in one of the two major high tech hubs, either the Route 128 corridor near Boston, or in Silicon Valley near its closest competitors. But the company grew in size so quickly that it became more and more difficult to consider the relocation of so many employees, and the potential disruption to the business. In retrospect, because it was not a center for high tech, it was harder to find employees yet much easier to keep them, as there was much less risk of poaching by competitors; as the dot-com boom resulted in waves of employee departures, the executives were relieved to have a somewhat captive labor market.

By the time discussions on the headquarters began in earnest, there were several TechSoft offices in the West, one each in the South and Midwest, and four buildings in the Northeast. The same model that the global company used to manage the U.S. subsidiary was used to manage each of these regions. Each region managed their own P&L (profit and loss statement) and was an

independent functioning organization with a small corporate staff.²¹ In the Northeast, TechSoft America had leased four office buildings in an economically depressed area outside a major city and near an international airport. All four offices were bursting at the seams, and the executive team was also concerned because the arrangement was expensive, not cohesive for the staff, and it was “a competitive disadvantage to not be able to show [TechSoft] might and muscle.” So, in close collaboration with the global executive team, U.S. management began a multi-year effort to locate an appropriate construction site.

Early on, there was an attempt to work with the local mayor on a high tech zone near the existing leased space. The proposal was that TechSoft America would be a founding member of what would become a much larger revitalization effort and high tech campus in the area. All parties thought the location and the collaborative possibilities were very appealing, but in the end the taxes were prohibitive. The effort was abandoned, but the negotiation efforts had used precious time and an alternate solution was now almost desperately required. The proposed headquarters building had already been designed and leases were due to expire on several of the facilities housing TechSoft employees.

In the end, several possible locations presented themselves. One was the purchase of part of an industrial park that had been recently subdivided. The location, while well removed from the airport, was suburban and beautiful, and

²¹ In the late 1990s, increased centralization was attempted with the goal of eliminating redundancies and reducing expenses. But for a variety of reasons the centralized model did not work, and over time the company has returned to an organizational model that is much closer to the original decentralized one. These developments and the rationalization behind them will be discussed at greater length in another chapter.

allowed for the construction of the building as it had been design and approved by TechSoft global executive team. Upon visiting the site, the founders articulated that the proposed location resonated with their vision for the corporate culture of the company. There was the additional benefit that the existing owner had space that TechSoft could lease for those employees who were working in buildings where the leases were expiring. The employees in the old leased space continued to be frustrated by the close quarters, but the executive team discovered a newfound tolerance once the new headquarter plan was unveiled.

Martin and his colleagues believed that the headquarters building design would “fundamentally drive behavior.” But they also recognized that they didn’t want to be too specific, because company goals and needs would surely evolve – even just in the time it took to find the site, design the building, construct it, and move in. The planning and design team nonetheless tried to use the space to make a conscious statement about the company they wanted TechSoft to be.

The executive team in Europe was actively engaged in decisions about the US site, building design, and even the office furniture selection. Early on, some of furniture for training centers and conference rooms was actually shipped from Europe for use in the U.S. offices. In Europe, formal legislation dictates minimum office standards, including the requirement in some countries that all employees work in natural light. At TechSoft’s global headquarters, this was accomplished by putting all employee offices on the outside perimeter of the

office buildings. The standard configuration was for each of these offices to house four desks, facing away from each other to the four walls or windows.

The challenge of designing interior space is that large blocks of work areas are cheaper to construct, and the desire for daylight requires open floor plans. But at the same time, smaller spaces create more intimate working environments and thus foster social cohesion (Wells 1972:98). In the U.S. at the time, office standards typically called for very high cubicle walls. The decision-makers at TechSoft decided to retain the walls for privacy, while at the same time lowering them to make the space more open and light. This was based in part on what Martin described as an 'egalitarian kick,' where one executive had entirely knocked cubicle walls down in some of the leased offices.

The interior space is one of the major expenses of the building, so in the new TechSoft space they made a decision not to give traveling employees (which was nearly half of those based in the area) assigned workspaces, but rather a workspace available on an as-needed basis. Spaces would be identical for all employees and executives, to ensure that the space was democratic and flexible to accommodate growth and shuffling of teams. The idea was that anyone could plug into a desk anywhere in the building and have the same amenities – same cube design, phone, network access, good light, easy access to printer and other things. Interestingly, some have argued that homogeneous looking space encourages employees to strive for competitive differentiation (Nash 1979:422), though it is not clear to me that this is particularly the case at

TechSoft, since workers sitting in adjacent cubicles are not necessarily working on similar tasks.

In keeping with the design research of the period, there are few elevators in the headquarters, with the goal of encouraging people to interact while traveling through stairways and halls. In fact, the entire space is designed to encourage socializing and the exchange of ideas – everything from the shared cafeteria, to an auditorium for local events, to booth seating at the coffee shop, to comfortable seating by the windows in the regularly placed kitchenettes. Private space was also provided in the form of conference rooms, to be used on an as-needed basis and booked through a publicly accessible reservation system using TechSoft software.

The building is designed with an intimate relationship to the outside space. In an interview with the local paper, the architect said that the mirrored surface reflected the surroundings, and that the green glass allowed light to pass through easily. He hoped that people walking along the one great hallway on the inside would feel that they were walking on the edge of a park. The three-story high atrium hallway runs the length of the building, and the solarium cafeteria further ensures that everyone gets a view outdoors. The narrowness of the building allows natural light to flow into each workspace.

Martin described their intent as “a child’s ant farm, a glass box housing an ant colony, to describe the eye-catching view outsiders will get through the atrium glass on the building’s north side”. The team wanted to ensure that there was an

impression of activity. The hope was that if a second building was constructed, employees could see each other in opposite buildings and still feel that energy and sense of community.

The Campus

The route from the international airport to the TechSoft campus is a combination of highway and more rural roadways. From the airport complex, there is a short spell on a massive eight-lane interstate, and then a brief stint on an always-congested interchange. And then the drive weaves more gently through suburban neighborhoods, with large houses set back from the road on wooded lots, and an occasional semi-commercialized neighborhood like the one surrounding TechSoft America headquarters.

The suburban campus²² is several hundred acres in size. It was originally a girls' school, and a small grouping of beautiful stone 'cottages' harkens back to the days when it was an academic campus. The cottages have since been renovated, modernized, and connected to TechSoft's network for use by visitors and senior management traveling on business from other regions or parts of the U.S.. The school staff invested time and energy in developing an arboretum feel

²² I have been curious about the reasons that corporations moved from metropolitan areas to large suburban industrial parks, also often described as corporate campuses. From the Latin, it means a field or lawn that is devoid of trees; these spaces were used for military exercises, and later for large public buildings. Also related to *campagna*, which denotes a field in the agricultural sense. According to the Oxford English Dictionary, *campus* later came to refer to the space between buildings at a college or university. However, I have struggled to locate any literature that describes the move of corporate headquarters from their metropolitan beginnings to suburban space. The socio-economic and political reasons for this (might be very region-specific but) would present an interesting opportunity for further study.

to the surroundings, so massive old trees have been well maintained and labeled, and carefully constructed landscaping has been developed in the areas that are the most frequently trafficked. When the school closed, the campus was purchased by a company which, before selling the property to TechSoft, turned the acreage into an industrial park by constructing several office buildings.

The campus is clearly demarcated from its neighborhood by a white fence. The lawns are neatly maintained, and lush trees and bushes present a massive wall of greenery that gives a fortress feel to the campus. Visitors can follow the fence to any one of three entrances, all of which have gates that are electronically controlled. Two of the gates are guarded by security officers during the day, and in the evening access by car is limited to those who have a campus pass. The main gate has a massive white sign with the company's name and logo. In smaller letters underneath the names of the other companies are also listed. During the day, access to the campus is by wave-through for employees with a window sticker. Visitors must register their cars at the gate to receive a temporary parking pass, and then also provide additional information to security officers in the buildings in order to receive access to offices.

From the security gate, the view up the gentle slope is of the southern face of TechSoft's headquarters building. A sidewalk parallels the small roadway, and both bring visitors past the length of the building to an intersection where employees and visitors can choose to navigate towards one of TechSoft's three buildings, the other company on campus, the cottages, or one of the many

parking garages and lots. Both the road and the sidewalk are well lit in the evenings and during inclement weather, and offer a walk on campus as an alternative for those that have the time, or who prefer exercise to the campus shuttle.

The view from the main parking garage is towards the main building, which is three stories high, two blocks long, and less than one hundred feet wide. It is constructed of large panels of slightly mirrored dark blue-green glass. One roadway leads in a U-shape to the front of the building, where a large fountain functions as the point of exclamation on the massive structure that extends in front of it.

From the north side the building appears to have a slight crescent shape. Inside this arch, gravel walking paths have been planted with trees and flowers, and benches have also been provided. In the morning, during lunch hours, and in the evening, there is a fair amount of pedestrian traffic at the main entrance near the fountain. But with the exception of some employees who are regular runners, the walking trails get limited usage, perhaps because most employees seldom take breaks to take advantage of these facilities, or perhaps because those using the trails are clearly visible to those inside, making private jaunts publicly visible.

The Glass Palace

The roadway and sidewalks lead to the building's main entrance under a smoked glass and steel awning. The entranceway is four doors across, two sets

of two doors, all glass. The hinges are at the top and bottom of the doors, which give the appearance that the doors are somehow detached or suspended.

Despite this airy appearance, the doors are nonetheless very heavy and require quite a bit of force on the handle, a round, brushed, stainless steel bar that runs across the width of the door.

Once inside a second set of doors, the foyer is a bright, open, and airy space, though filled with echoes from the marble floor and glass walls. This entrance area is open from the ground floor to the roof three stories up, and is the point of entry for customers and employees alike.²³ The open style of the foyer continues the length of the building; nearly one third of the building width is open from the ground floor to the roof, providing a walkway on the ground floor, and room for staircases to subsequent floors. The remaining width of the building is used for workspace.

There is a reception desk that always has a large bouquet of fresh flowers, and to the right side of the desk, a small grouping of black leather sofas provides a waiting area for visitors. A two-story glass wall behind the reception desk supports an enormous screen, on which TechSoft television commercials, print advertisements, and welcome messages for customers are displayed. Behind the reception desk there is a hallway, and on the far side of that hallway is an office space enclosed in smoked glass, where security officers monitor campus

²³ Martin said that there was a very conscious choice to bring customers and employees together at one entrance. This was to serve as a constant reminder to employees about organizational priorities, while at the same time giving customers a feel for the daily energy of TechSoft. A separate service entrance was established beneath the garage, so that delivery vehicles would not mar the appearance of the main entrance.

activity from a bank of television monitors. Past the reception desk toward the length of the building, employees and registered guests pass by the Training reception desk, a security officer, and through a turnstile with a *beep* of their badge into the main office space.

Past the turnstiles, each grouping of cubicles or 'cubes' is named alphabetically, beginning with the letter A and ending with the letter T on the third floor. These groupings of cubicles and meeting rooms are named for real neighborhoods in the metropolitan area nearby. The 'neighborhood' is comprised of sixty-four cubicles, two cubicles back to back, four deep for a grouping of eight. The grouping of four evokes the conventions of the global offices. Four such clusters are placed on each side of the building, separated by a walkway lined with file cabinets, printers, and fax machines, and strewn with unclaimed printouts. Each grouping is also peppered with plants that are maintained by contract staff whose quiet occasional presence is nearly invisible in the midst of other office activity.

In addition to cubicles and shared equipment like printers and fax machines, each neighborhood has several conference rooms, which are named beginning with the same first letter of the alphabet. These conference rooms are reserved through an online system that uses TechSoft software. Employees log in to the system using their employee identification number and a password, and they are able to book rooms up to one year in advance. Because of the building layout by alphabet, nearby rooms are easily identified in the system. Despite this

publicly available reservation system, there is still a fair amount of 'squatting' that goes on in these rooms, and occasionally meeting organizers have to bump colleagues from reserved space. In addition, because the open floor plan provides limited privacy for management activity, many of the rooms have been pulled from the system, and used for office space. These rooms usually have printed signs placed on the door (and sometimes locks) indicating that the room is not available for general use.

Just inside the turnstile in the first neighborhood, the desks are almost entirely 'virtual cubes.' These are left unassigned so that traveling employees (primarily consultants) have use of a cubicle and a company telephone while they are in the office. Sales staff based in the area have assigned cubicles. While consulting managers based near headquarters have assigned cubicles in this space, it is unusual to see a consultant at the same desk for more than a day or two. Consultants come to the Glass Palace²⁴ between assignments, to meet with their manager for performance reviews, or to attend training. The time that these revenue-generating employees spend on campus is not usually billed to customers, so a sparsely populated virtual workspace is the sign of a healthy consulting practice at TechSoft.

²⁴ This appears to be a reference to the Deere & Company headquarters building, which was studied at length by Edward and Mildred Hall (1975). Deere employees alternatively called the building the Rust Palace or the Crystal Palace, depending on whether they found the architecture agreeable or not. An TechSoft consultant referred to the headquarters building as the Glass Palace, giving the impression that the building was for the company's elite, and not for those like him.

With the exception of papers left behind by previous visitors, the virtual cubicle space at the TechSoft Americas headquarters building is bare, devoid of family pictures or other personalization. But for employees who regularly work in the office and have assigned cubicles, it is common practice to claim the cubicle by personalizing it, either through the hanging of frequently used documents, photographs, pictures drawn by children, or the occasional poster-sized print of a favorite company ad. Because the space is so bright, some employees have and care for plants at their desks.

The company runs a number of conferences every year; a few of these events are for employees, but most are intended to draw in, educate, and sell to customers. Sales and presales staff usually travel several days per week, they attend these and industry events on a regular basis, as the revenue they generate more than covers the cost of their travel. But for the most part, it is the technical staff supporting these events who keep the admissions badges hanging at their desk, each one symbolizing a rare trip out of town, an especially late night of system configuration and support, or another critical event survived.

About two thirds of the way down the length of the building on the ground floor is a small coffee shop, also staffed by the contract food staff. Employees can purchase espresso beverages, pastries, fruit, and other light snacks. The sounds of grinding coffee and frothing milk is one of the many sounds that permeates the building throughout the day, as the open architecture and building materials permit the noise to flow throughout the building. Occasionally people

hold small work meetings at the tables and chairs in the shop itself, or on the stools by the windows overlooking the walking trails on the north side of the building.

Continuing down the length of the ground floor, one conference room facing the hallway has been permanently reserved as a Wireless Shop, where employees can pick up cell phones and pagers, have them serviced, or raise questions regarding services and billing. Nearing the far end of the building is the travel services group, which has a contractual relationship with TechSoft's purchasing department to provide air, rail, hotel, and car reservations for employees in the United States. These reservationists are supplemented by a remote, national call center that supports other time zones and off-hour emergencies.

In the last grouping of cubicles before the gym is the Information Technology (IT) Field Support Group, one piece of the larger organization that resides in another building on the main campus. IT Field Support staff provide onsite support for employer-issued laptops and desktops, as well as the local file and print servers. They accept walk up appointments in addition to servicing the tickets which are dispatched to them via the IT help desk database and, in urgent cases, via pager.

The gymnasium is at the very west point of the building, and so has glass on three sides. Employees can join for a monthly fee, and take advantage of state of the art equipment and knowledgeable staff from seven in the morning

until eight in the evening, with shorter hours on the weekend. These staff are paid as part of an TechSoft contract with a health services provider. Employees who are not members of the gym can still take advantage of the foosball and ping-pong tables in the gym lobby, and regardless of membership status, employees can pay for spa services like massage.

At the east end of the building opposite the gym, the seating area for cafeteria on the ground floor is open all the way to the roof, with glass on three sides. A patio curves around the outside of the cafeteria, with seating available in all but the winter months. Employees can purchase breakfast or company-subsidized lunch, and then the cafeteria closes for the day after lunch ends at two o'clock. Employees come through in the morning to pick up breakfast, though few eat breakfast in the cafeteria. The neighborhood surrounding the campus offers few options for food, as a result, for those employees that work in the office and have the time, the cafeteria is a common place to catch up with colleagues from other departments, and those from other buildings who walk or take the shuttle to the main building for lunch. It is unusual for employees to spend a full hour consuming lunch; it is much more common to see people packing their lunch into take-out containers for consumption at their desks.

Above the ground floor kitchen is the seating and kitchen area for another cafeteria on the second floor. This second floor cafeteria is adjacent to classrooms and cubicles for training administrators, instructors, and some systems support staff; it is used exclusively for customer attending training, and

for instructors teaching. Most corporations are very cognizant of their intranets as sources of proprietary information, and TechSoft is no exception. Students attend classes in TechSoft offices, but the classrooms are in a part of the building that does not require access with a badge. The classrooms are set up on a separate network that is disconnected from the rest of the TechSoft office in which it resides. This provides the necessary protection from intrusions by overly curious students, but at the same time, it means that TechSoft instructors are in the office at yet at the same time not connected to the company's core systems; they are in the office and yet still on the periphery. The remainder of the second floor has groupings of cubicles separated by conference rooms, walkways with shared printers and faxes. The space is bright, and the grey and blue cubicles are punctuated with an assortment of potted plants.

On the third floor over the Training rooms are demonstration rooms, where sales and presales staff bring customers for onsite presentations. In addition to the demo rooms and the executive dining area, the third floor also houses all the executive offices, Northeast Sales and Presales staff, the Legal department, and other aspects of the business that are deemed most critical to senior management. The executive dining area overlooks the employee dining area on the ground floor. This space was originally intended for executives to use when entertaining customers, but today the executives eat on the third floor regardless of whether they are entertaining or not; this is a big change from what was originally intended by the design team. As with the training area, the east portion

of the third floor is separated from employee offices by a glass door. Employees can pass freely with use of their badge, but it is not possible for customers attending training or demos to walk through to the employee office area unattended. This same mechanism is used to lock the human resources, legal department, and executive area during non-working hours.

When the building was constructed, the third floor had an open floor plan, and it was thus common to executives circulating, talking with one another, and moving between meetings. It has a broad appeal with the employee base in terms of giving a feeling of management accessibility (whether real or perceived). Over time, many of the conference rooms on the floor were claimed as private offices by senior management, as there was some concern about the ability to maintain confidentiality of information with the open floor plan. Global senior management had appointed a European as the CEO of TechSoft America, and he was not comfortable with the open floor plan. While he was in office he had a wall built around a group of cubicles and meeting rooms, with access via glass doors and employee badge - for people with the correct authorizations. The wall was built almost overnight, and it came at a time when the dot-com craze was becoming the dot-com bust. There was growing tension about the economy in general and company performance in particular, and with this a sense of unease, concern, and uncertainty permeated the office atmosphere. Employees dubbed the new construction the Berlin Wall. Some executives spoke openly about their concern with the new arrangement, but practicality and desire for privacy quickly

outpaced the desire for a more integrated workspace. This sort of stratified response (appreciation by more senior staff, dissatisfaction by employees) is fairly common when workspace is re-arranged in this way (Hatch 1990:130-32).

Neither Martin nor any of the other executives who originally designed the space are still employed at TechSoft. But their hope had been that regular contact with employees would give the impression of less hierarchy, making the executive team appear more accessible. At the same time, it would keep the executives in touch with the employee base. But the reality is that spatial relations may in fact obscure power relations (Baldry et al 1998). For example, while the original building design called for a consistent cubicle layout, executives still had assigned parking spots in the garage, closest to the main building entrance, and executives who were not from the area were shuttled to and from the airport by private car service.

While the workspace is open and bright, the personal space is not private space. Cubicle design was surely intended to keep employees aware of each others' activities; I know that in my daily workday I am very cognizant of the comings and goings of the colleagues in my immediate surroundings. The space is anchored by women working in administrative support roles, who are usually assigned to the corner cubicles within a grouping of cubes. If they are supporting executives in the office, these staff are at their desks during regular working hours; expectations are that they will be available by eight-thirty at the latest, and in the office until at least five-thirty, though those supporting the most senior

executives often work much longer hours. Most of the people who sit near me are in revenue-generating positions, and as a result, many of them keep very varied schedules with fifty percent or more of their time spent on the road. For the most part, my schedule and duties are dictated by my most current project, and the activities of those around me – even my team members – do not impact my decisions on when I come in or leave for the day, how long a lunch I take, and so on. There is no time clock, and certainly no stated expectations about working hours. In fact, I have been told that as long as my work gets done, no one will question my work hours. However, there is nonetheless a keen awareness about who comes in and when, how long they stay, and so on. If people go home and log on after work, or if they work at home, it is not uncommon to check the time stamp on email to see when people are working.

I do find the lack of private space frustrating at times. During a period when I was tending to a prolonged family emergency, I found myself ducking into conference rooms to use the phone, or hiding in an unused demonstration room where I could address family matters in private. I also often see people strolling away from their desks on cell phones, standing near the railing so that the details of their conversation are obscured by hallway traffic or the sounds of the coffee shop below.

Telecommuting

By the 1980s, 87% of large firms and 32% of small firms had a local area network (LAN) to network within offices, and many had wide-area networks

(WANs) to network between offices as well (Greenbaum 1995:109). These technologies enabled offices and workers to be increasingly dispersed, which in turn made way for a varied configuration of virtual workgroups and offices, and new work environments including the home office (Greenbaum 1995:124). The U.S. Congress report on the Automation of America's Offices indicated that the trend towards home-based work is strongest in the United States (1985: 196).

I think it must always seem like a luxury at first - equipment at home, and company-paid Internet access, and not having to commute. In fact, for a brief moment, it seems that the liminal space of the home office might be at the borderlands of disciplinary practices, providing the possibility for better work-life balance, and maybe even new forms of resistance. That is, if you can consider multi-tasking on work and personal life (like doing laundry during conference calls) a form of resistance.

Perhaps because it has become an increasing reality, telecommuting has also become a growing topic of interest in the popular press. But the opportunity to work from home signals different things to different people. It could mean the ability to control the work environment (increased quiet, less interruptions), reduced commute time, less childcare concerns, and so on. For example, Wacjman (1991) argues that men work *from* home while women work *at* home. What she is describing is a situation where women who work at home may be disadvantaged because they often have responsibility for maintaining the household and caring for children in addition to their work. Thus, while working

at home may resolve childcare issues, it may also provide a wealth of distractions that reinforce the difficult balance between household responsibilities and work outside the home for women.

In some cases, employees may feel so appreciative about working at home that they push hard to demonstrate their productivity in order to retain the privilege, and may actually work *extra* hours, rationalized by not having to commute, and so on. From the Office of Technology Assessment report, it is clear that the government has some concerns about the inability to enforce labor standards in these contexts, and that this poses a potential risk to predominantly female clerical workers. However, it is recognized that few working even under difficult conditions would be willing to relinquish their current work arrangements (1985: 190, 208), even though in some cases workers at home are paid less (1985: 196).

The report identifies three different kinds of home-based work. The first is professional employees who work at home sporadically, the second is for businesses that may be in start-up mode or cannot afford the overhead of a separate office space, and the third is that the home office is the primary office for employees (often clerical workers) who may work for one company but seldom make it to a company office. The report says that those “who are enthusiasts for home-based work usually discuss it in terms of the first two images, the privileged worker and the entrepreneur. Those who oppose it are

likely to speak mostly of the last, the woman struggling to juggle two or more full-time responsibilities” (1985: 190).

Generally, employees working at home must be easily accessible in case they are needed. This may involve carrying a cell phone or a pager, which may ultimately result in being available after business hours as well. As my computer starts up, I am greeted by a splash screen with the company logo, and once the system has fully booted, my computer’s desktop is a company ad that has recently appeared in the *New York Times* and the *Financial Times*. When I am not using my computer, the screen saver cycles through other ads from the same recent campaign. When using the TechSoft network, employees are warned that they are being monitored, though few people seem to pay much attention to these warnings. The network logon warning screen at TechSoft does not appear when I am in the office, but it does come up regardless of whether I am at home (on a high speed connection) or on the road (using a phone line). It says that the company

... monitors employees’ network usage from time to time as a protection of TechSoft’s legitimate business interests. By logging onto the TechSoft network, you consent to such monitoring and acknowledge your awareness of it.

Most of the messages that announce this type of surveillance appear in dialog boxes that are quickly passed through during startup, but the statement clearly is that working away from the office does not mean being removed from the obligations of the company and its goals. In fact, companies permit

telecommuting precisely because increased productivity and employee satisfaction has been demonstrated. These surveillance technologies are only one of many corporate practices that ensure the self-management of remote employees; the role of socio-technical systems has already been discussed, and the role of corporate discourse and other technologies will be explored at greater length in subsequent chapters of the dissertation.

Every assignment of space has meaning in the corporate context; in fact, even the empty spaces have significance, as with the virtual cubes for consultants. When one technical manager was relieved of his team and responsibilities, he worked alone in his neighborhood for several months. He sat at one of the few occupied cubicles in the bank of thirty two, a quarantine area demarcated on each boundary by rows of empty cubicles.

Over time as management has changed or corporate priorities shifted, entire departments have been moved to different floors, and even to different buildings. For example, as the Product Management team was being gradually dismantled, they were relocated from the top floor near the executive area to the second floor of the headquarters building. A short while later it was decided that they would report to the development labs in Palo Alto; this meant that they no longer had fixed cubicle assignments at headquarters, and had to use the virtual cubicles or 'squat' at a vacant desk when they were at headquarters.

Additionally, the entire Information Technology (IT) group used to reside in the main headquarters building, but they have since been relocated to a remote

building on campus, ostensibly to make space for other groups who support the company's core operations in sales and services. Many of the technical teams, including IT, customer support, and support staff for the company's productive systems have been relocated from the main building to one of the other outlying spaces. As discussed in an earlier chapter, for the most part these teams support U.S. operations but report to global management.

While the other TechSoft buildings on campus are also light, spacious, and usually quieter, it is well understood that the focus of U.S. management is primarily on parts of the organization that generate revenue or are located in the Glass Palace. At the same time, those employees away from the office find that is not simply email and voicemail that tethers them to the office and to systems of discipline. Earlier chapters have already demonstrated that corporate discourse at TechSoft makes the relationship of core and periphery quite clear at the global and the local level. The discursive patterns that personalize corporate interests for employees are the subject of the subsequent chapter.

CHAPTER 5 'OUTSIDE-IN': PERSONALIZING THE MARKET

Overview

During the period of this study, TechSoft was undergoing a series of transformational efforts designed to make the U.S. subsidiary (and by extension all employees) more responsive to the local market. The company as a whole was also seeking to respond to industry trends that focused both technology development and the provision of services more intently on the customer. Changes at a global level were focused on improving communication to and support of customers on new product releases, while at the same time attempting to change perceptions of the company as stodgy and slow to change. In other words, the company's challenge in responding to economic and industry trends was largely perceived as a marketing problem.

As mentioned in the Introduction, this focus on the market emerged after World War II in response to changing patterns of business ownership (Knights & Morgan 1991). Since that time, experts from all disciplines have problematized 'the market' and 'consumers,' defining both new areas of risk and new arenas for expert intervention. Many of these technologies are quantitative, measurable, or financial, and are intended to mitigate risks both outwards with the market, and also inwards with the corporate practices. For example, for publicly-held companies, success (even survival) now requires demonstrating 'shareholder value.' The imperative has become increasingly strong since the mid-1980s

when companies in mature industries did not adequately invest their excess cash flow:

In each of these cases, the stock market predictably penalized the companies' shares. This led to the infamous "value gap," i.e., the difference between the value of the company if it were operated to maximize shareholder value and its current market value. A positive "value gap" was an invitation to well-financed corporate raiders to bid for the company and replace incumbent management. (Rappaport 1998:1-2)

Appadurai (1988:4) reminds us that psychological and cultural factors "interact to create economic value in specific social situations." In the case of TechSoft, a focus on 'shareholder value' is partly a response from a formally structured organization which is disconnected from the market (Du Gay & Salaman 1992:620). Sustaining profit margin projections and raising awareness about the stability and long-term health of the company relative to its competition also positions the company attractively to financial and industry analysts. Coupled together, these factors have rallied corporate management teams to attend to maximizing the stock and market value of the company, while at the same time contributing to a growing crescendo of market discourse that permeates every aspect of life within and beyond the corporation.

During the 1980s, a new form of marketing emerged, a field of expertise called branding, in which establishing a distinctive corporate identity – rather than product identity – is the objective. The branding concept hit full stride at the point when marketing companies had begun to recognize the saturation of their targeted audiences, and thus the downturn in advertising spending (Klein 2000).

But this is not just an exercise to increase revenues in marketing companies; it is part of a growing set of technologies focused on meeting perceived risks in both the market and customer perceptions. BusinessWeek now has an annual survey of brands, and during the 2002 report they claim that the economic downturn makes a strong brand an even greater imperative for success:

Now, more than ever, companies see the power of a strong brand. At a time when battered investors, customers, and employees are questioning whom they can trust, the ability of a familiar brand to deliver proven value flows straight to the bottom line. If, shaken by the plummeting stock market and concerned about the security of their jobs, consumers start cutting back on spending, they're more likely to stick with names they know they can rely on. (2002)

It is thus not surprising that TechSoft's Global Marketing organization was established during this period of perceived risk, and that it has developed an increasingly prominent role with the company in recent years. During this period of economic downturn and problems with market perception, TechSoft has used these technologies and undertaken a massive effort to raise brand awareness. This has served in part to give the company the appearance of stability from the outside while the massive, repetitive restructurings (which will be described in Chapter 6) were underway. Activities have included *brand identity* activities, intended to create an emotional consumer response, and *corporate identity* efforts which are more internally-focused (Cheston 2001:64). This chapter focuses on TechSoft's internal corporate identity efforts, and describes how the U.S. management team has taken the priorities of the global organization and personalized them, making U.S. employees complicit in both TechSoft's ongoing

focus on market-related goals like the reorganizations, as well as more explicit goals of revenue, profitability, and market share.

The social sciences have long-standing and varied understandings of what drives both people and society; for example, Marx gave primacy to economics and Durkheim to psycho-social factors. Similarly, Beyer (1990) argues that both *calculative* and *affective* technologies are used to elicit the desired level of commitment in high tech employees. Calculative approaches are financial, and are measured at both the individual and organizational level, and affective approaches are emotional or psychological. Beyer goes on to say that it is rare for an analysis of both approaches to be included in the same study as they are in this dissertation (1990:22-24). I would argue that it is critical for this project to consider how both approaches are at play in corporations today, including how the two may work in tandem as the junctures deemed most critical by management.

Marketing

There are a number of different marketing organizations at TechSoft. With the exception of Global Marketing, all the marketing groups that reside in the United States have region-specific responsibilities: a 'field marketing' team responsible for event execution, a group that provides sales support through competitive intelligence and customer references, a corporate communications and analyst relations group, and other teams like telemarketing services. For the purposes of this discussion, I will only be discussing the activities of the Global

Marketing organization. Analysis of the other organizations would provide additional visibility into the ways these teams have attempted to make sense and act on TechSoft's growing market focus in the context of their own responsibilities and work practices. In addition to the marketing efforts targeted externally, corporate identity efforts have included regular communications to TechSoft employees about the purpose and importance of the branding efforts. This section will focus why and how employees were targeted, and for what purpose. An analysis of the outward-facing messages would present a rich area for further research, but one that is beyond the scope of this dissertation.

Branding

During the Industrial Revolution, new manufacturing technologies enabled mass production of consumer goods²⁵ that were previously handmade and locally distributed (Klein 2000, Olsen 1995:249), and resulted in early trademarks (Olsen 1995:249). In the same period, packaging concepts from boxes to cans to tubes allowed much broader distribution of products (Olsen 1995:259). These factors resulted in greater competition, and in a greater focus on how to get the right message to the prospective buyer, the consumer. Manufacturers began to distinguish their companies and their products with logos and other advertising elements like consumer guidance. The messages in advertising mirror the social concerns of the era; the earliest themes cajoled consumers to "use the best so as not to be left behind" (Olsen 1995:250). Urban living meant that many families

²⁵ Early arrivals into this market space are now known as heritage brands.

no longer had homemade vegetable and fruit preserves, so later messages expounded on the convenience of store-bought products over homemade, to address the stigma of buying canned goods. By the early 1900s, personal hygiene products were being mass-produced and marketed to consumers, and advertising of soap, toothpaste, and toilet paper explicitly focused on “situational contexts that emphasized social stigma for impression management” (Olsen 1995:265).

While there was clearly a consumer focus during the Industrial Revolution, advertising occurred primarily at the product level. One hundred years later, Klein (2000) argues that there has been a substantive shift, triggered in part by the ideas of management theorists. The shift has been from the manufacturing of goods to production of the brands themselves. She says:

What these companies produced primarily were not things, [management theorists] said, but images of their brands. Their real work lay not in manufacturing but marketing. This formula, needless to say, has proved enormously profitable, and its success has companies competing in a race towards weightlessness: whoever owns the least, has the fewest employees on the payroll and produces the most powerful images, as opposed to products, wins the race. (2000:4)

In the past twenty to thirty years, the branding element of marketing activities has emerged in force as a new form of expertise, drawing from the fields of design, marketing, and from the social sciences to help companies optimally position themselves and their products in the eyes of the consumer.

'Culture jamming' is a form of protest in which activists alter the appearance of large public advertising. They retain the visual integrity of the billboard or the sign, but at the same time alter the message. This results in a familiarity of the image or look of the advertising (and thus an association with the brand), but at the same time, a jarring of the senses because of the altered message. Nome says that using "Saussure's framework, this can be explained as adding negative messages to the sign's signifier, and the goal is that consumers will include these messages when they go through their sensemaking cycles" (Nome:6). In her book tracing these changes, Klein's objective is not to incite resistance to the brands, but rather to document a process that she believes is already underway. While culture jamming was originally targeted at specific companies, now it is the brands themselves that are under attack. Klein (2000:5) believes this is because this form of branding has become an invasion of everything from the most enormous to the most minute of public and private spaces, and that the young radicals undertaking these activities have the power to change the country, and maybe even the world, as the activist of the 1960s did. Klein's stance on the danger of brands is considered misplaced by some.

Hilton says:

Keep the skepticism on hold for a moment: brands perform some important and positive social functions. They hold companies to the promises they make about the quality and usefulness of their products and services. ... The very prominence of brands, the fact that they present a tasty target for critics, means that they are held to public account in a way that businesses without famous brands are not. (2002)

Hilton goes on to say that this could be leveraged to public advantage if we encouraged “big business as a partner for social progress.” However, in his writing he does nothing to suggest how such a goal might be accomplished, especially in light of the enormous momentum and capital which is behind companies’ current branding initiatives.

I am skeptical of Hilton’s argument in part because of the magnitude of branding efforts, and how tightly they are interwoven with economic changes and understandings of the consumer. One author concludes that while recognition of companies and products was previously established through repetition, the economic context for the focus on branding is nothing less than a “profound shift in the unit of optimization” (Keeley 2001:16). Rather than focusing on efficiencies in manufacturing and distribution, he claims that “the new imperative is to assess what customers need, especially the subtle and deep needs customers cannot themselves articulate” (2001:16). Marketing provides tools to maximize market opportunities for companies; it is not surprising that advertising evolves into branding at the historical juncture when a corporate focus on the customer has reached a new level of concern.

Anthropologists have positioned themselves to take advantage of this growing focus on the customer; the increased number of articles on anthropology in the popular press is a testament to anthropologists’ involvement in marketing and consumer research, as well as the media fascination with social scientists doing this work (see for example Boss 2001, Hafner 1999, Henricks 2002, Jones

1999, Kaplan 1998, Konrad 2000, Kupfer 2000, Le Beau 2000, Walsch 2001, Wellner 2002). In a very interesting essay about developments in anthropology, Suchman (2000c) talks about the ways in which anthropologists have leveraged this consumer focus to their advantage. She says that the volume of popular press articles demonstrates “the emergence of anthropology itself as commercially consumable during this period.” A growing number of practicing anthropologists have recognized the perceived need to understand the consumer, and have positioned themselves as the experts to meet those needs; in fact, many of the articles on anthropologists in the popular press have talked about anthropologists’ role in consumer research. Suchman says the message of anthropology-as-brand is that anthropologists offer “uniquely intimate access to relevant Others,” and are at the same time perceived as an “exotic” in the corporate context. The concern of Suchman and others (Miller 1998, Sherry 1995) is that without some self-awareness, through our research insights social scientists may contribute to the greedy growth of transnational corporations, because “in taking up the analysis of consumable things we find ourselves contributing to, rather than refiguring, dominant forms of commodity fetishism” (Miller 1998:9). However, Suchman (2000c) further asserts that if we remain aware of these items as “an expression of contemporary social relationships,” we can retain our integrity as anthropologists by locating and analyzing the power dynamics in which these objects and their production are embedded.

TechSoft Corporate Identity

Because many employees are touch-points with the customer, brand value and meaning must be internalized in all employees in order for a (re)branding initiative to succeed. Leonhardt and Faust (2001:11) say “great brands are built from the inside out. A brand needs to inspire and motivate the people within the organization – before it can be successful in the marketplace.” And later, “when employees identify with the brand values, they are able to internalize the brand promise.” At the same time, negative experiences of the company impact consumer understanding of the brand (Dutton *et al* 1994). In the high-tech sector change is a constant; as companies re-organize and re-invent themselves, employee understanding of the company’s latest message becomes a critical success factor. Thus, in the first three months of TechSoft internal brand awareness campaign, the message from senior management was that reaching the customer is about a coherent presentation of the company, and to communicate in plain language about issues that mattered most to customers. Giving a consistent, smooth, connected appearance to the company was imperative during this tumultuous period.

At the end of the third quarter in 2000, TechSoft’s new messaging and positioning campaign began. The first internal event was a kickoff mail issued by the Chairman of the Board to all TechSoft employees worldwide. It introduced the Chief Marketing Officer (CMO) and communicated the importance of the branding initiative to all employees:

It is important that all employees understand the rationale behind the decision to create a new brand focus for TechSoft. In the late 1990s, the global acceptance of the Internet required TechSoft to quickly position itself as an Internet solution provider. The fastest way to accomplish this was to focus all business identity around [TechSoft's Internet solutions]. By doing this, TechSoft was able to articulate a change in our corporate culture while re-inventing itself as being a major player in the e-business revolution.

He then went on to say:

The combination of the equity garnered from [TechSoft's Internet product focus] and the market shift back to profitability and efficiency makes this a perfect time to reinstate TechSoft as the master brand. This allows us to take advantage of our heritage and history of value creation in the prevailing environment of profitable e-business. The evolution of the TechSoft logo brings a more contemporary feel to the brand ...

The following day, U.S. employees received an email from the regional corporate communications group, with details and links about programs targeted outwards at the U.S. market. Two weeks later, employees in the United States received an email directly from the Chief Marketing Officer, providing an update on advertising and branding activities. These communications were reinforced by several more worldwide mails before the end of the year. One of these communications provided detailed information about the Global Marketing organizations' alignment to support the strategic priorities for the coming year.

Rollout activities at the end of 2000 included a Unison initiative; the ongoing objective of this program is to ensure that all communications on the company's products and services communicate the same message, and thus reinforces the power of the brand. An email from the Board to employees worldwide stated "we must communicate in a clear, concise, and consistent

manner about all elements of the TechSoft ecosystem – in essence in ‘Unison.’” During the same period, a Unison reference handbook was issued to all TechSoft employees, explaining the ways the brand should be used, and providing positioning statements for each TechSoft product. Employees who brought their laptops to the Information Technology team for maintenance received it back with the company’s branded advertisements on the system desktop. If the computer was at rest and the screensaver activated, a progression of TechSoft advertisements were displayed in a slideshow. Employees who were enthusiastic about the campaign or particular advertisements could also acquire glossy, poster-sized reproductions of advertisements for their cubicles during this period.

In the first quarter of 2001, the Chief Marketing Officer presented a keynote speech at the sales kick-off meeting. Attendees were Sales, Pre-Sales, and management teams for all of the Americas. He spoke of market perception of TechSoft, the need to revitalize the brand. He then outlined his plans for the TechSoft branding activities in the coming year, and TechSoft employees’ responsibilities in that effort. By 2001, Global Marketing was the fastest growing organization worldwide, and the Chief Marketing Officer had been appointed to the extended global Board of Directors. In conjunction with other communications at targeted events, these efforts to educate employees about the significance of the brand and their role as stewards have continued on a regular basis through the period of my study.

Corporate Communications

As with many corporations, the U.S. offices of TechSoft are dispersed across North American time zones and cities. This makes intra-company communication a challenge. Most critical announcements from senior management are provided by email or conference call; these are often the primary vehicle for communication at a workgroup level as well. There are no in-person all-company meetings, though the regional sales teams come together face-to-face several times a year for training and rallying purposes. Smaller workgroups may also choose to fly to a common location and meet face-to-face for training, business planning and budgeting, or other shared activities. TechSoft's customer-facing employees are usually the ones generating revenue. They may work side by side with other TechSoft employees on sales cycles or consulting engagements, but for the most part these employees spend more time at customer locations or in airports than at an TechSoft office.²⁶

In the United States, we are more conscious today of the impact of asynchronous communication as voicemail becomes ubiquitous in office environments everywhere. What currently exists as a source of frustration in phone communication is commonly accepted part of email exchanges – so

²⁶ Both groups travel frequently as an expected part of their work week, but the travel is of very different qualities. Sales and Presales may travel to two or more cities in a week to speak with different customers. Because of the nature of their work, Sales and Presales may be well networked with one another, but somewhat disengaged from activities at TechSoft's corporate headquarters. Consultants may spend weeks or months at the same customer location, flying out on Sunday night or Monday morning, and returning home on Friday afternoon. Consultants substantially more time engaged with the customer, which results in a strong awareness of business practices and politics at the customer location, and an even greater disengagement (than in the sales organization) with the ongoing internal changes at TechSoft.

interestingly, people have different expectations for computer-mediated communication (CMC) than for the telephone. This is another example of communication and expectations which is very much context-dependent. Because TechSoft employees are dispersed all over the world, asynchronous communication is an everyday reality; employees at TechSoft must learn to execute their work tasks under these conditions. For situations that require complex, shared decision-making, conference calls, networked meetings where files can be jointly viewed, or videoconferences are held to supplement communications in the case where asynchronous, written exchange is insufficient. Employees appear to accept this type of communication and team dynamics as a matter of fact, though many express that this is easier done when some rapport has been established in face-to-face interactions first.

Computer-mediated communication (CMC) is one of many forms of communication in the daily life of TechSoft employees. In a work context where transnational collaboration is daily practice, CMC is used to conduct business and sustain relationships over distance, and so it becomes an integral part of day-to-day reality. Employees may have friends or colleagues with whom they only have electronic contact, engage in behaviors²⁷ that they would not engage in except online, and use a vocabulary that is not used elsewhere in their lives. Thus it becomes important to understand that computer-mediated communication is both situated in the larger socio-cultural context in which its

²⁷ I am thinking here of activities like gender-swapping, which is not an atypical behavior in online forums, though not applicable to exchanges in the corporate context.

participants and the technology they use reside, while at the same time it takes place within a self-contained subculture (with its own lexicon, space, sense of time). Some theorists like Sherry Turkle (1995) and Bill Nichols (1996) have already addressed this dichotomy, but many social scientists considering the implications of computer technology and electronic communication fail to consider and describe both aspects.

In an article entitled “The economies of online cooperation: Gifts and public goods in cyberspace”, Peter Kollock (1999) theorizes about sharing information online, and ties these ideas to anthropological notions about gift-giving. He says that any piece of information posted to a public forum becomes a public good, thus through an act of communication one person can have as great an impact as a large organized group. Motivations for such an act might be to get something in return, to improve one’s reputation, to improve the context, or because someone might need it. In other words, knowledge exchange is a way to develop social capital in a virtual community. With little to no cost of distribution, the likelihood of sharing information increases. Thus, sharing information in online contexts becomes a new way of producing and reproducing power relations.

At TechSoft there are some forums for exchange like the ones described by Kollock; the Information Technology (IT) group has set up a few newsgroups for global exchange within their organization, and the consulting group has also established knowledge-sharing forums. However, the use of these are restricted

within a job type or organization, and thus most of the sharing and exchange of this nature occurs within workgroups and/or project teams. In addition, the use of regional and company-wide distribution lists is controlled by a central authority in the intranet maintenance team, and thus large scale communications are addressed top down to the entire organization; rarely is an opportunity for equal dialogue and exchange available through the corporate email system across the breadth of the organization. The vehicles for corporate communications thus reproduce existing power relations.

In addition to Global Marketing efforts to re-invigorate the company's brand identity, in the past two years, there has been a growing body of communication regarding the customer-centric approach to employees worldwide, from both global and local senior management, including messaging about a new 'Outside-In' approach and the growing visibility and discussion about the quarterly Customer Satisfaction survey. In general, this portion of the chapter focuses on company rhetoric and practices around mobilizing the organization towards a customer-centered approach, and meeting (or giving the appearance of meeting) customer needs. This has not been a smooth, predictable trajectory, for as Townley (1993a:539) says "meanings and discursive practices are constant sites of struggle ... the seemingly insatiable drive toward greater clarification ... rather than replacing texts, adds to them." This has proven true at TechSoft, where management efforts to focus on the market have

been an iterative, evolving process. While new ways of describing market focus have emerged, there are also attempts to give old practices new urgency.

Getting Focused on 'Outside-In'

At the beginning of the fourth quarter of 2000, the CEO held the usual quarterly results 'town hall' meeting with employees of the Americas region. Many employees that were in the headquarters office sat in the auditorium, in other offices they sat grouped together in conference rooms. Employees could also choose to continue working during the meeting and watch a video rendition of the broadcast on the intranet, or listen in via teleconference. After the meeting, both the video version and the teleconference were available on the intranet in a digitally recorded format, for those who had obligations that prevented them from attending the meeting at the scheduled time.

In addition to reviewing the third quarter results and establishing the sales focus through the end of the year, the CEO spent some time talking about TechSoft's vision and mission. He described a business plan whose objective was to enable TechSoft to become an 'Outside-In' software company and thus meet the demands of the market. Following the meeting, an email with several attachments was forwarded by the Senior Vice President of Corporate Communications to all employees. The text document was three pages single-spaced, and the presentation was three slides. The materials provided a little bit of detail about TechSoft's complex product offerings in relationship to market

opportunities, and outlined some of the organizational alignment efforts that would accompany the Outside-In initiative.

I did not read the material closely at the time, and I suspect that many other employees didn't read it at all, since email saturation of employees has been an ongoing topic of concern at TechSoft. In retrospect, the documentation made clear that Outside-In was primarily a software development initiative. The CEO explained that the Development organization had been working hard to provide the kind of business-to-business and Internet-capable products our customers were looking for. He communicated that the first step in the new strategy was to provide a greater focus on customized development projects for customers. Customer Development Projects (CDPs) are used by TechSoft to provide functionality that a customer wants, but that may not be planned for the core product. The customer pays for the project, and TechSoft supplies developers to execute it. CDPs provide a way to meet the demands of customers with deep pockets, and the approach comes at relatively little expense to TechSoft. Most importantly, the process does not require any major changes to TechSoft's overall software development strategy.

Outside-In was a new company chant that was oft-repeated in corporate communications, for example, after the quarterly results call where Outside-In was introduced, the following message was included in a follow up email:

This alignment will re-define the roles and responsibilities of the organizations that will execute our vision. For the first time in the history of TechSoft, Marketing will drive the organization and be in

charge of the brand, messaging/communications and delivery media. This is a critical step in ensuring a true 'outside-in' focus and delivering on market expectations.

However, with the exception of the Global Marketing team, the role of other organizations in the Outside-In initiative was only articulated with a broad brush. Besides a greater focus on Customer Development Projects, it was unclear to some how these pronouncements represented real change, and what it would mean for us in our daily work; it was not actionable. However, the goal was clearly to change market perception, because in the same email that was issued to employees after the call, the CEO said:

This alignment is not about cost cutting or massive reorganization. It is about meeting market needs, sustaining market leadership and driving for accelerated growth – growth for our company, our shareholders, our partners and our employees.

Successes and next steps to the Outside-In plan were not communicated in subsequent meetings with the employee base, and it does not appear that the Outside-In approach significantly shaped business plans in the year that followed. As mentioned earlier, the end of 2000 and 2001 were not especially successful for TechSoft, and so, despite an effort to communicate a shared corporate vision, the Outside-In approach drifted out of employee consciousness on the winds of re-organization that year.

The Customer Satisfaction Survey

Every year since 1987, TechSoft has conducted a globally coordinated survey of its customers, and the data has been logged in a system driven by

TechSoft software.²⁸ Customer Satisfaction is considered a critical success factor for corporations like TechSoft because satisfaction can be directly correlated with customer retention, which in turn impacts license revenue, fiscal health, positive press and analyst perceptions, and shareholder value. Thus the survey is a technology aligned with the market-relations discourse. At the same time, raising awareness about the survey's purpose and measures serves to keep employees subject to the discourse as well (Du Gay 1996:52, Manley 2001).

The high level plan (including purpose, objectives, deliverables) for the survey is available on the company intranet, but only the earliest posted results are available for review. Results are considered company-confidential and access is highly restricted. Beginning in 2002, quarterly results have included information about customer satisfaction, as a way to educate employees about the current state of TechSoft-customer relations. While survey results are not publicly available, the process is public knowledge for interested parties.²⁹ One survey is designed for worldwide use. It is adjusted annually, and is approved by the Board before it is administered locally. Each subsidiary at TechSoft is responsible for assigning an individual or an organization to drive the customer satisfaction process each year. In the case of the United States, the Competitive

²⁸ The survey may have been conducted prior to 1987, but no information regarding prior processes was available.

²⁹ In this case the distinction between process and practice is an important one. Here I am intending to explain the standard process. The practice may vary somewhat or substantially. For the purposes of this discussion, however, the variations between process and practice is of less concern; the focus is the rhetoric supporting these activities.

Intelligence team (part of the regional marketing organization) works with a third-party vendor to collect feedback from customers and analyze the results.

TechSoft does have both local customer support and telemarketing organizations, so it is interesting that marketing has been selected to drive the survey. It may be that they were selected as a relatively neutral party, since their services are not being measured in this process.

Twenty-five percent of the customer base is surveyed each quarter. The survey is conducted over the Internet or by phone, depending on the customer's preference. Responses are numeric on a scale of one to ten, and there are a few longer questions targeted at specific organizations within TechSoft. In general, the focus of the questions is on customer's experience of TechSoft [outward-facing] teams. If a customer survey results in a rating of less than six or other serious problems are uncovered at a customer during the survey, the sales representative and sales management are engaged to address the problem within forty-eight hours, as they have primary responsibility for the customer relationship. Staff in other organizations may be engaged to address issues, and escalations may also involve senior management. Once the survey is complete, consolidated results are provided to all the relevant organizations, including Customer Support and Training.

As discussed in Chapter 2, contribution from the subsidiary to the parent organization has long been a standard metric for determining bonus payouts. More recently, customer satisfaction had been added as an additional metric on

which all employees' bonuses are based to some degree. However, as I mentioned earlier, for employees that are non-revenue generating, this may have a disproportionate impact on bonus payout, especially because many of these employees have no interaction with the customer whatsoever.

Since 2002, senior management has been communicating more actively on the metrics from the survey. During the quarterly results call, current and target measures of customer satisfaction are now also reported, and employees are attentive in part because of the impact the metrics may have on their variable compensation. This is reinforced with email messages like the following one from the Executive Vice President (EVP) of Sales to the Sales organization:

... the rating applies to all of us in customer facing positions. The effort to lift our customers' opinion of TechSoft in this area will require all of us to be more customer centric and focused on delivering value at every opportunity. As you know, many efforts are already underway to help us achieve our goals, things like sales effectiveness programs to help us better define the value our solutions can deliver and a renewed industry focus to help us better understand the customer's business needs. But it will take more than just these continuous improvement programs to raise the bar - it will take each and every one of us to rededicate ourselves to the customer and making TechSoft their partner for services and solutions.

I urge each of you to review the list above and ask yourself how you personally could improve the customer's experience in any or all of these areas. Remember, next to our employees, our customers are our most important asset. We need to make sure we protect and grow those assets to guarantee a bright future for them and for us.

While the rhetoric implies a substantial concern for these areas, financial incentives are still much more heavily weighted towards revenue achievement

than these other factors. In addition, while many TechSoft America employees are in customer-facing positions, there are also many who provide services to internal customers – that is, other employees. These employees are not managed to the same performance standards as their customer-facing counterparts; their work activities and performance are rarely surveyed. While their work may be equally critical to the company's success, it is not subject to the same mechanisms of control because these roles are not constituted within the current market-relations discourse at TechSoft.

Personalizing Measures

In all cases, internalization of financial and more abstract measures like customer satisfaction is reinforced by a direct financial impact on the employee. For example, while revenue is a primary focus for the corporation at large, there is also recognition that not all employees can impact revenue, so messages to the entire employee base also emphasize contribution and profitability. While these measures are well understood at the senior management level, in the past several years they have been more actively communicated to the employee base as well, with the burden of responsibility placed on employees and line managers. Through these communications, awareness has grown across the Americas that employees will be personally impacted if profitability is not good (i.e. the region is not cost-effective in making revenue), and contribution levels are not also achieved. The penalty for failing to achieve these objectives is reduced (or no) bonus payouts, and for vested employees a negative impact on

long term incentives and profit-sharing. Take for example this message from a new Chief Financial Officer regarding the logging of vacation time in the centralized time-tracking database:

Please remember, vacation days taken and not recorded, appear as a liability on TechSoft's financial statements. Failure to record vacation days causes the vacation liability to be overstated, thereby reducing TechSoft's overall contribution and the contribution to each cost center. It is the responsibility of every employee and manager to input and approve vacation time ...

The same message is now issued to all employees on a regular basis by the head of Payroll, using the same careful vocabulary and phrasing. The expectation is that the clear personal impact of these financial measures will heighten the awareness and compliance of all employees in meeting these objectives.

Regardless of function in the organization, both revenue generation and frugal spending by employees are encouraged. Before the regional sales model was put in place, this was a difficult balance to strike for U.S. employees who travelled the breadth of the U.S. (and even the Americas) on a weekly basis for sales and consulting opportunities. Some employees see their daily expenditures as part of the cost the company should pay for reduced quality of personal life at home. In contrast, European sales and consulting staff have reportedly different, more conservative spending habits. Perhaps this as a result of their proximity to the core; their travel requirements lead them through only

one or two countries in Europe, and they are thus close to the home office to be reminded of organizational priorities.

In addition to raising awareness about organizational financial measures, these are personalized at an individual level; each employee is managed towards achievement of revenue or performance objectives in part through their compensation plan. These plans are consciously designed to encourage the desired behavior in employees. For compensation purposes, there are two distinct categories of employees: revenue-generating and non-revenue generating. These two distinct categories almost completely overlap with the market-centric versus techno-centric communities described in earlier chapters. However, “it is through language that governmental fields are composed, rendered thinkable and manageable” (Miller & Rose 1990:7), thus, these categories that focus on revenue do have particular meaning and use. For revenue-generating roles like Sales, Consulting, and Training, compensation is primarily tied to the amount of revenue the individual generates for the company. Non-revenue generating staff (e.g. employees in the Information Technology group) are paid a flat bonus that is a fixed percentage of their base salary. In an article on management strategies targeted at Big Six accounting firm employees, the authors distinguish how mechanisms of control vary based on employees’ to the firm’s goals (Covaleski *et al* 1998). In a similar fashion, with the remainder of this chapter I will document the practices in use with different TechSoft employee populations and the behaviors they are intended to elicit. These practices

reaffirm the power of the core – in this case U.S. senior management – by imposing corporate values and objectives on the employee base.

Revenue-generating employees

Employees that work in revenue-generating positions are frequently on the road, and are thus rarely physically proximate to the core – an TechSoft office. But because their work involves daily interaction with customers and prospects, there is little need for formal bureaucracy to keep these workers focused on the market. Compensation for these employees is determined in large part by the revenue they generate, which means that they are naturally focused on the most critical of corporate objectives. The compensation plans for these groups are among the most intricate in the company, and are modified during the annual budgeting process to ensure that these employees focus on the strategic objectives for that year. The following three sections describe how several of the revenue-generating roles – Account Executives, Consultants, and Instructors – are managed to the corporate metrics of revenue, contribution, and customer satisfaction. In the Introduction, I briefly addressed the work of Kunda (1992) and its relevance for this dissertation. I argued that while the concept of normative control is quite useful, psycho-social mechanisms of control cannot be uniformly applied across populations with disparate work activities, different relationships to the global organization and market, and so on. Each of these roles can be grouped in the category of customer-facing and revenue-generating employees, but these following brief descriptions further highlight the unique

ways each group is managed to corporate objectives. Exploring any one of these roles (and how individuals respond or resist the measures defined for their job) could be a dissertation in it's own right. The purpose of the sections below is to highlight the complex factors that impact the choices of these employees, and to contrast these (in a subsequent section) with the measures used to manage non-revenue-generating employees.

Account Executives

As mentioned previously, the primary responsibility of the regions is to sell software. In the world of sales, a Lead is a prospective customer or an existing customer who is evaluating the purchase of additional software. Success in sales revolves around the ability to get leads and cultivate them into deals – signed software contracts. The Pipeline is the list of leads, the size of the potential deal, when it would be expected to close, where it is in the sales cycle, and the weighting, which is the likelihood of the deal being actualized. Each sales organization is expected to have a pipeline large enough to meet its revenue target. The pipeline is the single most important internal measure of the company's projected revenue; the sales staff, their managers, and the executives to whom they report are all held accountable for 'pipeline health' and ultimately sales execution. At TechSoft, the responsibility to monitor, evaluate, analyze, and grow the pipeline rests in the hands of the U.S. sales management team and their direct reports. Sales staff meets and reports weekly, monthly, and quarterly to review the status of their pipeline.

Each employee in Sales and Presales is assigned a revenue target (called 'the quota') for the year. This number is based in part on job grade, seniority, and also on previous years' performance. These employees are responsible for representing TechSoft to customers and prospects, and for selling software and services. They receive a percentage of the revenue on the deals they help to close, and they may also benefit from accelerators³⁰ attached to strategic objectives. The bonus for hitting these objectives may be paid out quarter over quarter, but for the most part, Sales and Presales staff receive their bonuses at the end of February for the previous fiscal year. It is thus not uncommon to see some voluntary resignations from this group in the first quarter once the bonuses are paid out.

TechSoft uses the time management system on a worldwide basis to track vacation and sick time, which then gets automatically deducted from annual quotas in the Human Resource system and reported electronically to the immediate supervisor. But as discussed in Chapter 3, it is used in varying degrees by different groups. The Account Executives are only responsible for tracking their time and travel activities only insofar as it impacts the cost of sales. The time management system is not a primary mechanism for controlling work-related behavior.

Consultants

³⁰ These multipliers are applied to the revenue for meeting targets early or achieving strategic objectives. The company sets the objectives during the annual budgeting and planning process.

The most well-reputed companies are able to command higher prices, and have greater success at either the top or bottom of the price scale, rather than in the middle (Keeley 2001). TechSoft ensures the elite status of its consulting services by offering consultants to customers at some of the highest rates in the industry. The rationale is that consulting services from the software vendor are more desirable than those of a third party. However, this puts the services of TechSoft consultants out of reach for some customers, as implementation costs represent a significant portion of the investment in a project. Some customers pay for one or two TechSoft consultants and bring the rest from a preferred service provider, others opt not to use TechSoft at all.

The consulting organization uses the time management system to track how much time should be billed and to which customers. Once Statement of Work paperwork is completed at the customer and at TechSoft, consultants are assigned to the project and a Sales Order is created to which they bill their time. Through a separate transaction in the same system, consultants also track all of their expenses, which, along with the charges for their time, are billed back to customers on a monthly basis. Expense reimbursement limits are well known, but they are also reinforced by the system; employees receive a system warning when dollar amount exceed the established thresholds. Reimbursements require the signature of the Consulting Manager, and in addition to this checkpoint, managers also receive monthly reports documenting the details of any

exceptions. These reports are also provided in a summary format up through the ranks of consulting management.

The services of consulting staff are billed to customers at a daily rate. In order to be 'bonusable,' a consultant has to work a certain number of days per year. There are 227 'billable days' in the year (minus holidays and average number of vacation days). Consultants are also encouraged to stay abreast of new technologies with fourteen paid training days per year. Based on seniority, grade level, and other factors, a minimum threshold of billable days is established, after which point consultants begin to accrue bonus, which is paid out twice annually. In this way, consultants are encouraged to keep their *utilization* high; they move quickly from one project to the next, and try to avoid 'sitting on the bench' for more than a few days at a time.³¹ Consultants may not bill every customer at the same rate, but a broader skillset allows the consultant to be billed out at a higher rate and assigned to a greater number of projects. Consultants are thus also motivated to improve their skills to increase their billable rates and ultimately their bonus potential.

Instructors

Instructors in TechSoft's Training organization teach classes in TechSoft offices all over the U.S., and also occasionally on location at the customer.

Instructors usually come to TechSoft with deep knowledge in their industry, and if

³¹ These practices also discourage consultants from working on internal projects, as the billing rate is restricted and the work does not generate revenue. This in turn reduces the shared bonus pool, which impacts all consultants in the group. Thus, working internal projects carries a stigma at both an individual and workgroup level.

they are not familiar with the software, they are trained on the products they will teach. This means that the company makes a heavy investment in training new instructors who have the right skills and experience. This approach is especially critical in the classroom context, where instructors must be able to speak the language of the industry (and the customer) with ease. As with consultants, instructors specialize in a certain area of the product, and gradually develop the skills to teach a greater and greater number of classes in their curriculum area. More senior instructors get first pick of the courses in their home office, so the broader the range of courses they are able to teach, the less they are required to travel to achieve the minimum required days.

Registration for classes is handled via phone through a central registration center, and more recently over the Internet. There is a fixed rate for the courses; classes are no larger than twenty-four students, and they are not held for less than six participants. Because they have no control over classroom attendance, instructors receive a bonus based in part on the number of days spent teaching, and not the number of attendees in or amount of revenue generated by their classes. Similar to the utilization metrics used to manage consultants, this approach motivates instructors to agree to teach classes on days that they were not originally scheduled to work, and to learn other areas of the curriculum so that they can be as productive as possible. Bonus payout for instructors is contingent on minimum customer satisfaction scores; these employees thus see a direct correlation between their activities and their compensation.

The training group takes full advantage of TechSoft's software to manage the annual training calendar, customer course attendance, instructor and system allocation, and ultimately, the bonus payout for instructors. Bonuses for instructors are paid out twice a year, but the turnover rate for instructors is low and is not as clearly correlated to the bonus cycle as in sales. This may be because there are less options (than sales and consulting) to teach outside of TechSoft, and the benefits of seniority in this group are very clear.

Non-revenue-generating Employees

As mentioned earlier, non-revenue generating employees are usually bonused on a percentage of their base salary. These bonuses are largely MBO (Management by Objective) based. Payout is dependent on achievement of the overall revenue targets of the region, and so for these employees there is not the dynamic, role-based variety of measures that are applied to revenue-generating staff. There have been extensive studies of MBO practices in the management literature, but a summary of those studies suggests that the ability of MBO practices to effectively regulate behavior is still unclear (Kondrasuk 1981). However, for the purposes of this study, it is less interesting whether these technologies are effective or not, rather, the question is "how and why, and with what effects, boundaries become imposed" (Townley 1993a:529).

At TechSoft, as customer satisfaction and contribution have become a greater part of management focus, bonus plans have been adjusted in the re-engineering tradition to ensure that all employees are directly impacted by the

successes and failures of the organization as a whole. Achievement of customer satisfaction and contribution goals now has a substantial impact on the bonus payout for non-revenue-generating employees. In conjunction with corporate metrics, bonus is determined by their manager based on a series of performance measures which, unlike revenue-generating staff, are not paid out solely by that individual's performance. It is not uncommon for the bonuses of Sales and Presales staff to be larger than the base salary of most non-revenue-generating employees. Thus, in an ironic twist, the employees that are least able to directly impact customer satisfaction numbers are the most affected by them when bonuses are paid out.

For non-revenue generating employees, displaying a commitment to corporate and department objectives is a part of ensuring payout on the MBO portion of the bonus. For these employees, the performance review process takes on a ritualistic quality that serves to enforce the market-relations discourse in a highly bureaucratic way. The next section addresses the ways in which performance reviews and the larger activities of career management have evolved for all employees at TechSoft.

Performance Review as a Form of Discipline

Foucault (1988a:152) argued that the State exists to perpetuate itself, and it is only concerned with individuals insofar as they impact the strength of the State. So, while the performance review process appears to demonstrate corporate concern for the well-being, emotional satisfaction, and career growth of

employees, in reality, the process is intended to ensure that employees remain aligned with corporate objectives. The review process plays a critical role in the constitution of worker-as-subject by using techniques of avowal and by rating employees in relation to their peers.

During performance reviews, managers meet with each direct report to set goals and to assess work performance relative to those goals. Through the confessional style of the exchange, the employee constitutes himself as subject by making private hopes public and thereby governable. Weedon suggests that “it is the imaginary quality of the individual’s identification with a subject position which gives it so much psychological and emotional force.” Giddens (1990:124) says that this ‘opening out’ reflects the changing nature of intimacy and self-fulfillment that is a distinctive characteristic of modernity.

In addition to ensuring alignment with the goals of the corporation writ large, the performance review also enables the manager to measure employee performance relative to peers. Increased complexity of work in corporations has resulted in varied skills and compensation (Zahrly 1990). This in turn creates a high degree of stratification in the workforce (Townley 1993a) that requires an understanding of individuals in a quantifiable way in relation to each other, and to the employee base at large. Townley argues that the gap between both individuals and groups is what becomes governable, and that Human Resources activities thus “render organizations and their participants calculable” (1993a:526). Comparative measurement or normalization by managers through

the performance review process is a form of discipline (Burrell 1988:231, Foucault 1975:184). However, these mechanisms of control are more complex than their rational, numerically-focused language would suggest. A purely positivist, economic view of the employee-employer relationship obscures its complexity. The performance review governs the space between the employment contract and changing market conditions; it is a way of codifying expectations that are not in the employee contract, job description, or compensation plan (Townley 1993a:524). Thus, the performance review provides a flexible mechanism for the manager to mitigate risks that were not accounted for in the job description or other standard documents.

From Performance Evaluation to Performance Management at TechSoft

The performance review process at TechSoft does not appear to be substantially different from the process described in academic literature, nor that different from what I've experienced at other companies. However, as TechSoft searches to become more market-focused, both the review process and tools reflect the subtle changes in corporate strategy, as well as my move to a more market-focused position. That evolution is the subject of this section.

When I worked in the IT Support Center at TechSoft in the late 1990s, our manager guided us through the details of the Performance Evaluation & Planning process. Its name at the time reflected the approach; though I was an active participant in the process, I was subject to evaluation by my manager. The three major sections of the form included Performance Objectives, Behavioral /

Technical Competencies, and a Professional Development Plan. Each section allowed a 'Self-Assessment of Actual Results' and a 'Manager's Assessment of Results.' The latter also included space for a rating of each attribute on a scale of one to five. The forms were emailed to us with the Objectives pulled right from the job description, for example:

- Properly documents the problem or service request in the call-tracking tool and then records steps taken towards resolution.
- Properly escalates tickets to assigned support organization when no resolution has been made.
- Assist in training new hires at Support Center

And for Competencies:

- Fact-finding ability
- Customer service orientation

As mentioned earlier, the form required a 'Self-Assessment of Actual Results' in each category. So for example, next to the second Objective above I wrote:

Both in everyday answering of calls and during my on-call shifts, I have demonstrated my ability to escalate tickets to the appropriate group in Americas IT, and determine when logging a ticket in CSN is appropriate.

After completing the self assessment, I sent the completed form back to our manager, who updated the form with comments and ratings, and then scheduled a time to meet with me. After a brief meeting and discussion, my manager and I signed the form, and it was then reviewed and signed by the group Director.

After all signatures had been obtained and the form sent to Human Resources, I received a final copy for my personal files.

Since I did not anticipate any big surprises during my performance evaluation, I was more interested in what the financial implications of my review would be. A rating of three was 'Meets Expectations,' and would ensure a bonus payout based on achievement of my objectives (MBOs). I had been told that a five 'Consistently Exceeds Expectations' was very unlikely, and a four 'Exceeds Expectations' was also fairly unlikely because the ratings for the entire department had to be on a bell curve; a four for me would require that one of my co-workers get rated a two. The stated objective for this approach was to prevent inflation of ratings. So, I anticipated that I would receive a three but I wished for a four, since anything above a three might result in a small merit increase if the company did well. The purpose of this digression is not to reflect on my focus with variable compensation, but rather to demonstrate that a focus on ratings with a clear tie to financial measures inevitably obscured the intended focus on employee performance.

Several years later, I found myself working in a group that had direct contact with the salesforce and occasional contact with customers. My role had changed, and the company's performance review process had changed, too. The Employee Guide to the Performance Management Process (PMP) is now Unison compliant, and it even has a marketing tag line of its own - "its all about people working together for customer success." The opening pages of the Guide assert the critical role that employees have in the company's success:

The continued success of [TechSoft] depends on its people; their capabilities, their belief in the company's potential, and their willingness to engage talent, knowledge, energy, effort, and enthusiasm toward reaching TechSoft's goals.

Twice a year, the Employee Guide to the PMP is emailed along with a link to the online performance management system. The Guide also makes clear that performance is the employee's responsibility:

Managing performance is a joint effort between an employee and a manager. While managing employee performance and development is one of a manager's most important responsibilities, it is the individual who is most concerned with, and responsible for, his or her performance.

It is critical to recognize these 'empowerment' messages as a form of control (Sturdy 2001:7), however subtle

In corporations a kind of sovereign power exists and can be described as parallel in character to that of the state. But attention to this can be misleading and often conceals more pervasive and subtle procedures of power and the sites of its deployment. (Deetz 2003:29)

In TechSoft's new performance management process, the employee is required to initiate the process with their manager, asking for guidance as needed. At the beginning of the year when the employee receives the link, all of the fields are blank; in part because of my new job, or perhaps the new PMP process itself, the form does not require adherence to the job description as it did in the past. So in order to set objectives to be measured against for the year, I was encouraged by my boss to look at my job description, but also to review the corporate direction that had been communicated by the executive team in the sales kick-off meeting,

and to frame my objectives in reference to that direction. We later reviewed and made adjustments to these together. In other words, I was asked to use the PMP as a way to demonstrate my alignment with and commitment to furthering corporate strategy.

In addition to these changes in process, the categories on the form have changed. For example, the new PMP form no longer has an area for management to document their numerical rating of the employee. However, that is not to suggest that such rankings have vanished; the process is simply no longer visible to employees. 'Calibration' has replaced ranking, and the calibration process is now undertaken with managers in conjunction with their management. In addition to making employee performance visible to a greater portion of the management team, this new process also ensures senior management involvement on the PMP processes which most impact the company's fiscal health: variable compensation and salary increases. It also decouples the review and variable compensation, which in turn keeps the employee's focus on the performance aspect of the PMP rather than the financial implications.

The new format also allows for more narrative. There is a section called Self Assessment Questions in which the employee is asked to reflect the review period, and on their work context:

- What have been your key accomplishments over the past review period?
- What obstacles have you faced that have hindered you from accomplishing your objectives?

- What are the three most valuable things your manager does for/with you now?
- How could your Manager create more value for you?

These sorts of questions represent a substantial departure from the earlier form. The employee, as a free agent in charge of their own success, now evaluates the work environment and the relationship with their manager as market conditions that allow or inhibit them from being successful. This appears to create a space for critical reflection on, for example, disruptive organizational change or a difficult peer situation. However, if an employee expresses dissatisfaction with the circumstances surrounding their employment conditions, they render their attitude towards those conditions governable by their manager, their manager's manager, and even Human Resources personnel. Thus, regardless of how personalized the language of the PMP becomes, it is still a form of discipline, a way of minimizing risk to the corporation by ensuring employee compliance, and ensuring the best possible fit between employees and the corporation.

While Taylor was exploring the potential of scientific management, Human Relations theorists built on Durkheim's legacy and proposed that workplace malaise could be addressed by fitting 'the job to the man and the man to the job.' While this may appear to be an outdated sentiment, present-day management tools like the Gallup Strengthfinders™ perpetuate the same approach, and are heavily utilized in corporate America today. Rather than focusing on gaps in employee skills, Strengthfinders™ uses an approach that assesses what the employee does best. In this way, employees can be successful at work, content

in doing their job, with the goal of eliciting their optimal performance. During the tenure of one SVP of Human Resources, Strengthfinders was administered to all the company's top performers. Certain sections of the PMP reflect the Gallup approach by asking:

- What are your greatest strengths (talents and abilities)? How can use further utilize them in your current role?
- What would you change about your current responsibilities to allow you to focus more on using them?

Similar to the old review form, there is an area where the employee can document development needs, anticipated results, and resource requirements to help them achieve their desired development objectives. As I have moved more and more towards customer-facing knowledge work, I have found that these development objectives are less relevant; most of the soft skills and network of relationships that permit career growth cannot be found in a classroom setting. However, if the employee identifies abilities and career goals that are not aligned with their current role, they are again rendered governable; they may be asked to re-evaluate whether they want to retain their position or, alternatively, seek employment elsewhere.

Through the PMP, then, the burden of success and achievement is placed squarely on the backs of employees. Resistance to company norms may be tolerated to a degree, but may result in reduced recognition and reward (Perlow 1998:353) on the part of the management team and the corporation. Ultimately, successful navigation of the review process is part of the performance of

commitment that the corporation requires of self-managing employees. Survivors navigate the unspoken, governable space in the performance review process.

In a critique of labor process theorists, Austrin appears to agree that employees work independently of one another, and that the effort to control their workload and perceptions of their work

intensifies workers' problems with self-worth and meaning. More significantly, in this new context of isolation, these existential troubles find release, not through resistance to work, but rather through effective performance on the job. (1994:202-3)

Austrin goes on to argue that there are multiple discourses at play in this context, and that it is important to not only focus on the one that is legitimized by the institution. He uses the example of a unionization effort in the finance sector in New Zealand, in which women developed alternative, more equitable constructions of themselves and their roles and, using the power of the union, impacted the dominant discourse. As discussed in the Introduction, unionization in the high tech sector seems unlikely for the time being. But while the swell of an alternate discourse may not be available within the corporation, individuals may find the support they need in the industry itself, and thereby maintain a sense of self associated with the profession or occupational sub-group, rather than with the corporation itself.

The Brand Called You

With their blockbuster book *In Search of Excellence*, Peters and Waterman (1982) brought many of the principles of Human Relations back to

contemporary management thought; they argued that by fostering a culture of excellence in the workplace, management helps to make employees more engaged in their work and more committed to furthering corporate objectives. The authors were credited with starting the genre of popular management literature and making these ideas accessible to a wide audience. Millions of copies of the book that were sold, but critical theorists vilify Peters in spite of – or perhaps because of – his success. These theorists argue that the tenets of Excellence simply enable management to constitute employees as subjects in new but familiar ways (Du Gay 1996:60-64, Rose 1989:114-17). Part of what has made Peters' work so successful is that he makes explicit trends that are already present in corporate America. So while his messages are not always new, he enables the proliferation of these ideas and practices through his books. For example, in a relatively recent essay entitled "The Brand Called You," Peters (1997) personalizes the concept of branding that was discussed earlier in this chapter:

Start right now: as of this moment you're going to think of yourself differently! ... You don't 'belong to' any company for life, and your chief affiliation isn't to any particular 'function.' You're not defined by your job title and you're not confined by your job description. Starting today you are a brand. (1997:86)

Peters goes on to say that employee loyalty is alive and well, but that it is a very different type of loyalty than what he describes as the 'indentured servitude' of years past:

As long as you're learning, growing, building relationships, and delivering great results, it's good for you and it's great for the company. That win-win logic holds for as long as you happen to be at that particular company. Which is precisely where the age of free agency comes into play. If you're treating your résumé as if it's a marketing brochure, you're learning the first lesson of free agency. (1997:94)

Succeeding in the job market today, Peters goes on to say, is about differentiating yourself as the brand called You, though whether that is achieved through extra work or extracurricular work is irrelevant. It's not what you do, but how you do it, and whom you get to know as you're doing it. The goal is to establish yourself as a successful, well-known node in a complex, interdependent network that extends beyond the walls of the corporation, and permeates into every part of your life. In other words, the job market today is part of the free market system, and each individual consumes work, opportunities, and connections. The objective of this consumer relationship is to produce yourself - and there is no alternative - but the risk is being both consumer and consumed.

Grey (1994:481) argues that it is precisely this project of the self and the discourse of career which institutionalizes us beyond the bounds of any particular institution. The study of networks and work is not new to the social sciences - see for example Granovetter (1983, 1995), and the compilation of earlier essays on *Networks in the Knowledge Economy* by Cross *et al* (2003). As communities around the globe become dispersed and anthropologists understanding of 'the field' evolves accordingly, it will be increasingly important for anthropologists to extend our understanding of networks from inter- to intra- to extra-institutional. At

a personal level, these connections help to defray the distrust that is inherent in our dis-embedded world. Covalleski and Dirsmith (1988:562) have argued that extra-organizational support systems are especially important in periods of economic downturn. These concepts and others will be explored in Chapter 6, as the reality of organizational change is explored with an insider's view.

CHAPTER 6 ORGANIZING AND RE-ORGANIZING

Perhaps there is ordering, but there is certainly no order. This is because ... orders are never complete. Instead, they are more or less precarious and partial accomplishments that may be overturned. ... [T]he idea that there is a single order ... is the dream, or the nightmare, of modernity. But there never was a root order, so we have to replace this aspiration by a concern with plural and incomplete process of social ordering. (Law 1994:1-2)

Overview

One of the weaknesses of earlier industrial ethnographies is that they have largely described the corporate context as a bounded system (Holzberg & Giovannini 1981:330). This resulted in a focus on dynamics internal to the corporation. A major thrust of this dissertation is to demonstrate that corporations evolve in a dynamic relationship to external factors as well, and that an understanding of these factors is critical for adequate analysis of the corporate landscape. Developments in the economy and the high tech industry provide a backdrop for how change is rationalized (and even naturalized), and for how these changes have played out at TechSoft.

This chapter is primarily about the organizational change activities that were an integral part of TechSoft during the period of my research. The management literature argues that dynamic organizations are requisite for survival in the high tech industry. This chapter explores how changes are rationalized within the bureaucratic framework at TechSoft, how practices evolve in response to changes external to the corporation, and what measures are taken to ensure compliance and cooperation of employees in these activities. By

bringing an anthropological perspective to this topic, this chapter seeks to move beyond normalizing explanations of organizational change.

Creative destruction (Schumpeter 1975) is a distinctive feature of capitalism that helps to explain the voracious demand for new goods and services, as well as the pervasive acceptance of (and even demand for) corporate change. However, this chapter shows how the management literature perpetuates the discourse on the necessity of change, and demonstrates some of the ways that an anthropological perspective can provide a more nuanced understanding of these activities.

Rationalizing Change

In the U.S., the work of management schools and corporations are deeply intertwined. While this fosters a greater understanding of the corporate context in the university setting, it also ensures that the evolving technologies of the workplace are informed by academic research. It is thus not surprising that both social science and management literature agree with industry experts that re-organizing is a critical component of success for high technology companies (Beyer 1990:20, Du Gay & Salaman 1992:617, Dyck 1997, Gregory-Huddleston 1994, Jelinek & Schoonhoven 1990, Kanter 1983, Kanter et al 1997, Kleinburg 1994, Reynolds 1994, Schoonhoven & Jelinek 1997, Sexton 1990, Tushman & Anderson 1997). In fact, change is deemed necessary for adjusting to evolving market demands and priorities.

There are two social science paradigms that inform our analysis of organizational change. One is rooted in a socio-psychological understanding that can be traced from Durkheim through the Human Relations school of thought and into the Total Quality Management (TQM) practices of the 1980s. The other is rooted primarily in rational, economic understanding, traceable from Marx through scientific management and into the Business Process Re-engineering (BPR) practices of the 1990s. Barley and Kunda (1992) have argued that the dominance of these paradigms has alternated consistently from one to the other, and that the transition is triggered by the advent of new productive technologies and related changes in the economy. While it is beyond the scope of this research to assess the validity of these claims, it is nonetheless apparent that in the past twenty or so years, these paradigms have become increasingly interwoven, in the search for a higher order of corporate predictability and employee control. Proponents of the latest management fads have sought to distinguish one fad from the other, but the reality is that formalized accounting practices, computing technologies, and management consultant methodologies like TQM and BPR share the common objectives of streamlining work to increase productivity and reduce costs.

For example, the rapid growth of manufacturing during the Industrial Revolution both encouraged and was built on the extensive use of information to control business processes and outcomes; this appetite for information in turn encouraged the diffusion of technologies – including both office equipment and

bureaucratic techniques³² or systems that supported information use (Yates 2000:107). Later, expanding conglomerates of the 1960s (Bugos 2000:114) led to a further detached and depersonalized management-by-numbers approach. Leveraging new computing technologies, Management Resource Planning (MRP) systems developed in the 1970s to support the demand for business analysis, and in the 1980s MRP evolved into Enterprise Resource Planning (ERP). These computing technologies meet the demands of the service economy by automating office functions, much as robotics are used to automate assembly line work. Routine tasks are automated so employees can take on a broader range of responsibilities and work longer hours.

Office automation software like ERP is based on “best practices” or “process models” which in theory should be part of the company’s business process at the outset. However, studies have demonstrated that business processes are usually being changed during the implementation (Markus et al 2000, Nance 1996), rather than using the software to automate processes as they exist at the start of the implementation. In conjunction with a reduction in hierarchy, full time employees find themselves working side by side with a growing number of temporary workers (Greenbaum 1995:103). All of these factors have resulted in a growing association of these approaches with

³² For example, Boards of Directors in the railroad industry cultivated and became dependent on local, white-collar middle management (Zunz 1990:126) to monitor both for safety and for financial objectives. Gradually from these and other concerns formal practices emerged, including the development of safety regulations, managerial reporting techniques, standardization and documentation of work activities, and accounting practices (Yates 2000:111, Zunz 1990:50). These techniques were dispersed between organizations through the migration of middle managers between corporations (Zunz 1990:48).

measures such as headcount reductions (Brown & Duguid 2000) and cost-cutting.

The growing involvement of Big Six accounting firms into management consulting activities has further reinforced mathematic, scientific approaches to analyzing business. Recently, these consultants have shaped, marketed, and sold their services using such labels as “Total Quality Management” and “Business Process Re-engineering”. Corporate change management activities have thus become a lucrative market in their own right. The legacy of Durkheim and Mayo has been recognized in TQM and more recently in the Excellence literature (Du Gay 1996, Miller & Rose 1995, Morgan & Sturdy 2000, Rose 1989).³³ Much like Human Relations and later industrial psychology, these newer practices seek to ensure employee participation in the workplace, to give work meaning for employees, and ultimately enhance their work performance as a result of their alignment with organizational objectives. These ‘quality of work life’ initiatives are based on the assumption employees who are satisfied with work will naturally be motivated to improve their performance, and to allow work to extend into their personal lives. Thus, the effort to improve the quality of working life is considered to be a win-win for both the corporation and the employee. Of particular interest for this dissertation is the way in which the psychology of the worker has become a key element in workplace analysis and optimization. Social scientists have provided insight into what drives worker

³³ This literature includes books like Deal and Kennedy’s (1982) *Corporate Cultures*, and Tom Peters and Waterman’s (1982) *In Search of Excellence*.

behavior and engagement, and this information has enabled management teams to instill self-management practices (or technologies of the self) in employees. The focus is still very much on maximizing what the corporation can extract from each individual employee.

It is now well accepted that Total Quality Management (TQM) has its roots in Human Relations movement of the 1930s (De Cock & Hipkin 1997:662). TQM was formulated as a discipline the 1940s and 1950s with W. Edwards Deming's work in Japan. He used statistically grounded methods to engage all employees in *kaizen*, the continual improvement of product quality. Deming "subscribed to the Japanese-influenced idea that success depends not on any individual's striving, but on the harmony of the workplace as a whole" (Kleiner 1995:5). One of the core principles of TQM is that experts cannot optimize work as well as the people who do it every day; employees must be active participants in the quality improvement effort if it is to be successful. Deming was discovered by American companies in the 1980s (Kleiner 1995:3), but while TQM is still discussed in management literature (De Cock & Hipkin 1997), it has become much less prevalent than it was at that time. Some have argued that TQM did not experience the great success in the United States that it had in Japan in part because there were senior managers who did not want to relinquish control in the manner suggested by Deming (Kleiner 1995:5), which in turn decreased the engagement of front-line employees who were critical for TQM to succeed. In

other words, the critics of TQM argue that it failed to optimize worker psychology in this formula for corporate change.

More recently, Michael Hammer and James Champy's book entitled *Re-engineering the Corporation* (1993) focused on the three Cs – customer, competition, and change; it was timely for the dynamic and market-driven 1990s. Like Total Quality Management, Reengineering was focused on collaboration across traditionally siloed parts of the organization (Kleiner 1995), and on reducing both busy-work (Greenbaum 1995) and costs (Pinault 2000:15); in other words, it reiterated the same focus on productivity which also drove scientific management nearly a hundred years prior. Downey (1995) reminds of the symbolic power of 'engineering' in re-engineering, by which he means using the authority of rational, scientific approaches to legitimize change management. However, in contrast to TQM's approach to elicit collaboration in employees, Hammer advocated tying each individual's success to the company's success; he recommended that each employee's "paycheck should rise or fall with the company's bottom line" (Kleiner 1995:5). This practice is known as variable compensation, and it is common in the high tech industry today, though shrinking profit margins have reduced the lucrative bonuses and profit-sharing practices of the dot-com boom.

Initially Hammer's approach had a great appeal, but by the late 1990s it was clear that the anticipated benefits of BPR would not materialize (De Cock & Hipkin 1997, Koch 2002a, 2002b, 2002c, Williams 2002), despite its founders'

insistence to the contrary.³⁴ Theorists seeking to explain the rapid demise of reengineering argued that its top-down approach and insistence on process made it an impractical and incomplete tool for effectuating change (Brown & Duguid 2000:97-98). For the most part, criticisms charged that the authoritative, technocratic approach ignored corporate politics (Knights & Willmott 2000a), and ultimately failed to account for the social complexity involved in change management.

These critiques have opened the door for anthropologists to use ethnographic methods to analyze work processes and social networks, and to bring insight to the complexity of change management processes. There are both risks and opportunities for anthropologists in this space. On one hand, an anthropological approach is a natural fit to for making sense of corporate complexity. On the other hand, the need to provide rapid, pragmatic, and essentially reductionist solutions to urgent business problems is an ongoing challenge for practicing anthropologists in the corporate setting.

Rational, quantitative (and now often computer-based) measures have become so integral to corporate life that we may fail to recognize their continuing influence. But some theorists also argue that psychological or normative control

³⁴ This has been acknowledged by Hammer and Champy, who said that “as many as 50 to 70 percent of the organizations that undertake a reengineering effort do not achieve the dramatic results they intended” (Hammer & Champy 1993:221). They continue to insist, however, that with the proper expertise success is possible. The authors argue that it was BPR and not the high tech industry that was a ‘key driver’ in the upswing of the U.S. economy in the late 1990s. In a 2001 prologue to a reprint of the book, the authors said that it is “particularly ironic that information technology has been proclaimed as the force behind the renaissance of U.S. industry; in fact reengineering has been the key that unlocked the potential of this technology” (Hammer & Champy 1993).

has been on a steady rise in the corporate setting. Perhaps, too, there is some validity to Barley and Kunda's (1992) analysis, and we are experiencing a backlash against the rationalist approaches in favor of psychological ones. The recent success of books like *Good to Great* (Collins 2001), which focuses on selecting impassioned, dedicated leaders to instill confidence and drive in employees, would support their argument. I would posit that it is not so much that these practices are on the rise, but rather that there has been an increased focus on them by academics, especially as social scientists are increasingly engaged in critical analysis of the corporate context.

Change Rationalized: TechSoft in Industry Context

This discourse [on customer relations] has fundamental implications for management attempts to define working practices and relations and ultimately, has impact on the conduct and identities of employees. Understanding these developments is not possible if analysis remains at the level of the organization. It requires that ... organizational restructurings, and the discourse which supports them, be located within the social and political rationality of the enterprise. (Du Gay & Salaman 1992:615)

TechSoft's early customers were primarily in the manufacturing sector, where the software met real, concrete operational needs – financial and warehouse management, for example. TechSoft has modified its software over time to take advantage of emerging technologies; the company's products have been adapted from the original incarnation on a mainframe, to client-server environments, and in more recent years, to the Internet. These developments have each in turn presented a new - but still manageable - set of technical

challenges to overcome. In keeping with the above authors' suggestions, this section describes some of the external conditions that led to a series of major restructurings during the period of my research, and examines how re-engineering and market discourses were used in concert to rationalize those changes.

Recently, rapidly changing economic conditions and purchasing patterns and more sophisticated consumer demand in the U.S. have presented challenges for the company; perhaps because TechSoft's software developers are more removed from the demands of the U.S. market than those of its Silicon Valley competitors. At TechSoft, decisions about which features and functions will appear in the product are made on a global basis after evaluating and prioritizing 'roll in' requirements from all regions. Product Management mediates development teams' relationship to the regions, so a developer's primary interaction internally is with other developers, and not with internal or external customers. Because of the breadth of the product and the amount of coordination that is required in developing complementary products, software development activities are for the most part driven by product requirements and release dates that are planned a year or more in advance. The product breadth and complexity thus makes it difficult to respond in a nimble fashion to opportunities or changes in the market. Since the U.S. market is driven by the dynamic regional demands, the different time cycles and rhythm of the Development teams are sometimes perceived as being inflexible.

Perhaps there is a certain truth to these perceptions of inflexibility. Compared to countries in Europe, United States labor laws are flexible, and lack of unionizing by white-collar high tech workers allows quick changes in U.S. staffing that are not permitted in other parts of the corporation. For example, since layoffs are made complex by European labor laws, some developers were hired and many more re-trained, rather than the fire-and-hire approach that would have been more likely if the Development organization was based in the United States. Greater U.S. involvement in the software development process would help to alleviate both of these issues, but there are very significant economic conditions and unspoken policies about where expertise should reside. A radical shift to U.S.-based development is unlikely, and there is little the subsidiary can do to influence the product development process to more effectively respond to their immediate, short term needs.

In addition, long product development timelines demand organizational stability, so there is less dramatic organizational change in Development than in other parts of the company. In fact, as an organization, TechSoft has established a variety of strategies that result in the Development organization remaining relatively static. There are some interesting parallels in organizational strategy between TechSoft software developers and the production facility of a manufacturing company. For example, in a study of semi-conductor firms, it was shown that the production team (who are equivalent to the developers) has to remain stable and consistent. In contrast, the remainder of the organization

needs to simultaneously cultivate innovation and organizational responsiveness in a dynamic relationship with the market (Gomez-Mejia & Lawless 1990).

Developers, who were creating technologies as yet unimagined by their prospective customers, drove early product design at TechSoft. However, the pervasiveness and possibilities of the Internet have transformed the applications of computing technology in business, so companies are demanding tools not just to manage day-to-day operations, but to help their employees make strategic decisions at every level of the business. As the global software market grew in size and diversity, a plethora of small software companies emerged to challenge specific, targeted markets in which TechSoft also played. While many of those dot-com competitors later failed or consolidated as the market became less lucrative, they nonetheless changed customers' expectations about what enterprise software products could and should do, and how quickly software should come to market after having incorporated customer requirements. In the software development industry, these changes have been framed as a customer or user research problem; these demands require a deeper understanding of the nuances of the customers' business if applicable software is to be developed.

As with other vendors in the same niche, TechSoft struggles to meet these demands, as the majority of its development team is committed to sustaining the breadth of the product that has already been developed. In the late 1990s, as the U.S. offices of TechSoft struggled, blame was partially placed on the delay in the product development lifecycle. This in turn was attributed to the fact that

TechSoft software developers are based in Europe, and are removed from the demands of the U.S. market. The reality is that the maintenance of existing products represents the majority of most company's development costs, which limits the resources that can be allocated to new product development.

However, it is also true that the company was slower to market than many of its competitors for reasons unique to TechSoft.

Internal challenges at TechSoft were compounded by what were later described as strategic errors in responding to changing market conditions. For example, the company was slow to change its sales tactics in response to changing buying patterns in the market. Specifically, TechSoft recognized that the enormous sales of the 1980s and 90s are no longer a reality. The pressures of the U.S. economic recession and other factors have made a greater number of small deals much more common. Even companies with deep pockets have made adjustments to how they handle software purchases; purchasing strategies have been decentralized, making it harder to achieve a large, multi-business-unit sale. IT purchases in general and for enterprise software in particular represent an enormous capital outlay, both for software licenses and for the required implementation services. With the downturn in the economy, customers are reticent to purchase unless they have a clear indication that they will experience a return on investment (ROI). Finally, small, nimble companies in the competitive dot-com era challenged customer expectations about expenditures and rollout timeline. TechSoft has now realized that it was slow to recognize and respond to

these changing market conditions in the U.S., which have since made their appearance in markets throughout the world. The company has since made changes in accordance with its new, more market-centric strategy; those changes were explored in Chapter 5, and will also be discussed in more detail later in this chapter.

TechSoft survived this period in large part because it has a very loyal customer or 'installed' base. In difficult economic times, companies with this advantage focus their energy on existing customers. That is, they attempt to sell additional software and services where they have established relationships. Small or new companies without deep pockets, or companies that have only one product are disadvantaged under these conditions. However, while the company's market share is still good, profitability (and therefore contribution to the global organization) was poor during the period of this study. TechSoft Americas spent too much money to make money, thus doing little to contribute to global profitability objectives. These challenges were further exacerbated by a substantial amount of senior management turnover in the United States organization; in 2001-2002, every C-level executive (Chief Executive Officer, Chief Financial Officer, Chief Operating Officer) and numerous Executive or Senior Vice Presidents quit, retired, or was released. In contrast to the buffer afforded the development organization, U.S. teams re-organized with increasing frequency as TechSoft tried to find a structure and processes that would curb the disastrous drop in profitability and contribution. But 'Best Practices' were

redefined with each new administration, and the lack of consistency resulted in poor regional performance during the period of this study. These changes have made it nearly impossible to develop and manage to a consistent business plan, and also very difficult to sustain operational stability and a trusting relationship with the global organization. During the latter part of my study, these circumstances resulted in a repeated cycle and a downward spiral of less revenue, unhappy employees, re-organizations, and more of the same. The details of how this transpired, and how it compares to management literature discussion on the topic, is the subject of the remainder of this chapter.

The Downward Spiral

In earlier chapters, I described some of the ways that top-down corporate communications have been used to deliver key messages to the employee base. I have also briefly spoken about how alternate means of communications (which could be characterized as resistance) are used by employees to express fear and frustration. As a way to introduce some of the change efforts that transpired at TechSoft during the period of my study, I would like to briefly explore what is not said during times of organizational transition and change.

Two Kinds of Quiet

In the weeks following the close of every quarter, the organization as a whole is in a 'quiet period,' in which all sales paperwork is completed, numbers are compiled, and internal analysis of the revenue is completed and reviewed

with a small group of senior executives.³⁵ During the quiet period, no information about sales activity is discussed outside of the corporation. The review and reporting period usually lasts two or three weeks into the new quarter, and is often a time of speculation and projections by analysts about what company results and those of the competition will mean for corporate objectives and health, and also for the industry at large. Once final information has been compiled in the U.S., it is reviewed with the global senior management team, and then released to shareholders and industry analysts.

Once results have reached the public domain, the Board sends out a worldwide quarterly results mail, which signals the end of the quiet period. In the following week, the Americas CEO, CFO, and U.S. Executive Vice President of Sales hold a call for the entire region, in which the quarterly and year-to-date results are reviewed and set in context of global organizational objectives, industry performance, and general economic trends (with a strong focus on the U.S.). The call is a sort of corporate pep rally, in which the EVP of Sales calls out the successes of individual salespeople and teams; unusually large deals and new strategic alliances are also announced. The CFO then also explains the sales results in the context of overall regional and global objectives for the year, and makes clear what impact these results may have on the payout of variable compensation to employees at the end of the year.

³⁵ This is in accordance with Security and Exchanges Commission (SEC) regulations.

The call is designed to keep the sales organization focused, and sets the expectations and pace for the remainder of the year. By mid-October the third quarter is over and the quarterly results call is complete. It is abundantly clear to everyone at TechSoft what measures are needed to make the numbers before the end of the year. As a result, the fourth quarter is always a busy time, as sales cycles that may have lagged earlier in the year are pushed hard towards closing. In general there is an incredible energy and intensity through the last few months of the year, and it is very difficult to pull salespeople and sales management into any non-customer related activity.

The SEC quiet period is common knowledge throughout the industry, and thus there is no question or confusion when the financial achievements or outlook of the company is not discussed during or immediately following the close of the quarter. In contrast, while TechSoft's tendency to re-organize at the end of the year is fairly well known, these activities are consistently cloaked in secrecy under the premise that news of the changes might impact fourth quarter sales efforts. These re-organizing efforts are thus discussed only in limited circles and with the utmost discretion; this is often challenging since hours and hours of analysis, secretive meetings and discussion are required. For those involved, these activities must be attended to in addition to regular fourth quarter work. The irony is that in the past few years these change management activities have become so common that even if plans are not openly discussed, all TechSoft employees have nonetheless come to expect them.

While policies vary with the management team in charge of the project, it is not atypical for employees participating in re-organization activities to sign an additional, more restrictive Non-Disclosure Agreement (NDA). The terms of the NDA stipulate that discussion of re-organization activities with non-NDAed personnel may result in disciplinary action or termination. In moments of frustration, team members have called the NDA 'the cone of silence,' or the 'veil of secrecy.' While project members recognize the need to limit the breadth of individuals involved in these efforts, at the same time they recognize that the decision about who will be NDA-ed (or not) is often a matter of politics and the personal preferences of the project sponsor; criticizing the list of NDA-ed employees becomes one of the ways to express frustration or dissatisfaction with company direction in general and with members of senior management in particular.

While there has been sociolinguistic work on resistance in the workplace, there has been very little research done on the role of peer-to-peer (or lateral) communication. Because top-down corporate communication on impending changes is infrequent or non-existent, personal networks become a key to information and even survival in this dynamic context. It is not uncommon to see colleagues ducking into conference rooms to build coalitions regarding proposed organizational changes, or to fish for information from someone they suspect is NDAed. This presents a rich area for further study, though data collection (even and maybe especially for those with insider status) is quite difficult. As will be

described later in this chapter, in the absence of a sanctioned space to raise questions, public Internet chat rooms act as virtual water coolers, a place where frustration is expressed or knowledge exchange takes place between disgruntled or terminated employees and other interested parties. These forms of communication create networks of alliances between staff, which in turn inform and protect individual concerns in the face of ongoing organizational change driven by corporate interests.

Fourth Quarter Whispers

The first rustling of leaves on the ground doesn't quite disguise the whispers of organizational change that have been a part of end of year activities at TechSoft in the past few years. Woven into the highly charged energy of fourth quarter sales has been the realization that less revenue means fewer workers. In retrospect, it is interesting to observe how the communication to the organization on these processes has varied from one year to the next. In general, it is understood that the company will make adjustments each year, but each year these changes vary in magnitude and breadth of impact. In all cases, however, re-organization activities are undertaken in conjunction with budgeting, and in such a way as to minimize the impact on sales productivity in the all-important fourth quarter. During the budget process in the fourth quarter, the process of re-organization is set in motion. The process begins as leaves begin to fall, and is actualized in the aftermath of fourth quarter results, in the bleakest months of winter.

Even before the terrorist activities of September 11th 2001, a downward trend in TechSoft Americas' sales and profitability had already caught the attention of global senior management. In an unusual move, several of the Board members came to the United States to actively engage in planning and help articulate the goals for the coming year. This signaled a new approach to annual organizational and financial planning for the U.S subsidiary, one that was much more driven by the demands and requirements of the parent organization. During weekend meetings with the Board members, several members of the U.S. executive management team quit. Word (and fear) spread through headquarters long before the CEO issued an official announcement about the departures.

During the quarterly results call in early October 2001, both the revenue target and the cost reduction target for the remainder of the year were announced. The CEO told employees that market leaders emerge out of periods of recession by getting 'lean and mean,' focusing on their core strengths, and preparing for the turnaround in the market. The quarterly results calls are typically used as a sort of cheerleading exercise; a focus on cost reduction in this context was unusual. The United States sales team eventually achieved fairly strong fourth quarter sales, but profitability (and thus contribution of those profits back to the parent company) was poor; this required a hard look at the US sales strategy and organization.

By the end of the year in 2001 the CEO had lost most of his executive team for a variety of reasons. All of the C-level positions (Chief Financial Officer,

Chief Operating Officer, etc.), and many of the Senior Vice President positions were vacant. It was impossible for the remaining members of the executive team to stay abreast of the headcount reduction plans and related budget decisions, and still focus on selling as much as possible before the end of the year. At different points in the fourth quarter, employees received conflicting signals about what the coming year would hold. At one point employees were told that layoffs were likely because of poor profitability in the region. In a subsequent call they were told to focus on sales because stronger sales would reduce the number of layoffs. When strategic priorities for 2002 were announced, certain groups that existed in 2001 did not appear in the 2002 plans. It was clear that these groups were being eliminated, but this was not communicated to them prior to an organization-wide announcement of these changes. So, while the stated goal of these increased communications was to boost employee confidence in the executive team and in the organization, with each all-employee call it became increasingly clear that the strategy for the coming year was murky at best. In fact at times, there were greater insights into company changes communicated in Internet chat rooms than through the official corporate channels.

With limited leadership and guidance, the mid-management staff involved in making the organization 'lean and mean' encountered competing and unclear instructions. Given the enormous scope of the undertaking, there was a struggle to rationalize different objectives and tasks of the various team members, and there was no overarching strategy to guide these choices. It was clear how

many employees had to be eliminated, but there was a limited understanding of what the new organization should look like, and what roles and responsibilities would be required. It was also not at all clear how business plans would be designed to support these reductions. For example, there was little to no time to evaluate supplementing services or business processes with global resources. As a result, the employees involved in the re-organization focused on their narrow aspect of the outcome, and little work was done to assess the impact on cross-organizational activities. At the end of the year, hundreds of employees were let go in the worst layoff in company history, and the subsequent months led to additional, smaller layoffs that were attributed to the restructuring. Later, the founder and Chairman of the Board would communicate that 2001 was the most difficult year in the company's history.

The Rationalized Demise of the Product Management Team

Product Management organizations are typically responsible for communicating customer and market requirements to the software developers. With development removed from many of TechSoft's key markets, product management roles are especially critical for ensuring both the accuracy and detail of product direction from the customer and prospect base. In 2001, TechSoft had a large U.S.-based product management and product marketing organization. The team reported to an Executive Vice President, who in turn reported to the CEO. All of these employees resided in the United States and were paid for by the U.S. organization. Costs for these services were allocated

from this centralized organization out to the sales lines of business. But while the staff in this organization was responsible for supporting revenue generation, their primary responsibility was not to sell software or services. During the quantification of the organization at the end of 2001, it became clear that the majority of this team was no longer affordable. The Executive Vice President was one of the members of the executive team who quit in this period. Most of the remaining positions were eliminated before the end of 2001, though some employees managed to find roles in other parts of the organization.

As the year was drawing to a close, a Vice President from Europe was appointed to oversee the remaining Product Management team until an action plan was finalized. The CEO issued an email announcing the new organizational structure and responsibilities of this team. What was not said was that there would no longer be end-of-year allocation of costs to Sales for these teams; the Senior Vice Presidents of the sales organizations did not want to negatively affect the profitability of their lines of business. In 2002, the Product Management team thus attempted to operate as a profit center, charging for services rendered. Rather than pay for Product Management services, in early 2002 the sales organization often worked directly with the global teams, or used other means to circumvent the charges that would be incurred in using local Product Management resources.

Also in early 2002, the corporate communications group attempted to reduce email saturation of employees by providing one email a week

summarizing corporate news, and providing a link to a website with further details. At this time, they significantly reduced authorizations for Product Management to send regular emails directly to the field, effectively crippling the team. By mid-2002, it was clear that the organizational model for Product Management was no longer viable. The team was re-organized and made to report directly into the global development teams residing in Palo Alto, where most positions were subsequently eliminated. As a result of a highly rationalized analysis of the organization (focused almost exclusively on cost of sale and metrics of sales to non-sales headcount), a critical bridge between the US market and the global development organization has been eliminated.

I have not yet come across a case study that documented this type of attempt at change management. Based on TechSoft's performance during this period, it's clear that the costs to both the organization and to individuals were substantial. I could argue that it was an aberration, or that iterative organizational design on this scale is normal. But what I suspect is that informants who have this information may be uncomfortable divulging information that shows their role in contributing to these problems, that researchers aren't normally given access to corporations under these conditions, that it is quite difficult to make sense of the messy reality of corporate life in publishable form, or that corporations are reluctant to expose these types of events to public scrutiny. These types of conditions therefore present a rich – though quite challenging - area for further study by anthropologists. These preceding

paragraphs will present an interest contrast to the final, upcoming section of this chapter, which looks more like the change efforts described in the management literature; the final section of this chapter describes how TechSoft began to experience a turnaround. The purpose of this section has been to make clear that change management may be described as a neatly bundled, well defined, logical, and even apolitical activity, when in reality it fact that is not always the case.

Saved by Strategy

Rapid changes make it challenging for employees to make sense of their work world, either because of changes within their workplace or because of mobility between organizations (Beyer 1990:29). This may help to explain the alienation of middle managers that Nash (1979:440) describes in her essay about multinational corporations. In addition, employees in the high tech industry have “highly specialized skills, they presumably have well-developed cognitive scripts and routines for carrying out their work.” (Beyer 1990:29). A dynamic context renders these scripts inaccurate or irrelevant, which results in adjustments to behaviors and practices, and a corresponding drop in productivity. As the organization continues to grow and change, individuals come to rely more and more on their own networks to accomplish their work. In fact, at TechSoft it is well recognized that the most tenured sales and presales staff make the most money. This is not simply because they are more skilled, but because they have established networks that they are able to leverage to close deals. Informal

networks are critical for survival, as they are used to help navigate organizational politics (Page & Dyer Jr. 1990:111); this may be especially true for those without access to privileged information about impending organizational changes.

While management literature addresses the dynamic quality of high tech workplaces, there is little discussion and analysis of individual actors in this context. Schoonhoven and Jelinek (1997:240) define dynamic tension as an ideal state - "the ability to be flexible through reorganizations as well as sufficiently systematic to be efficient producers." But this flexibility comes at a cost for both the corporation and individual employees. Commitment to an organization takes time to develop, and the dynamic conditions of the high tech industry provide little room for this to occur. As a result, employees may remain committed to the industry or product, to the profession or to their workgroup, but not necessarily to the organization itself (Beyer 1990:22-24). Unlike a stable work environment where employees may work within communities of practice, some theorists argue that there are more and more employees who operate as unique, individual nodes of a larger network that they have created for themselves (Nardi et al 2000). For these workers, the network is personal, individual, and a critical component for professional success. In these cases, corporate changes may provide the opportunity for employees to expand their networks of support.

Life was so tumultuous inside the corporation in 2001 that it is unlikely any external party would have been permitted to conduct research at TechSoft; my

insider status is what made it possible for me to document this period, though I struggled to bring an anthropological perspective to what I was experiencing. The changes I described in this chapter came several years into my work life at TechSoft. I was deep into research and beginning the dissertation-writing process, and I was panic-stricken both about losing my job and the possible impact on my dissertation research. This was compounded by the fact that I am deeply embedded in a culture where success is increasingly defined by professional achievement; failure at work is personal failure. I remember it being a very emotional time, and being upset when I heard co-workers depersonalizing the firing of their friends and colleagues by describing waves of layoffs as 'RIFs' - reductions in force. I also remember being struck by the anxiety and frustration of individuals (including myself) involved in the change management effort. We all felt that the lack of executive direction and a consistent, compelling strategy for the organizational change efforts made this period especially difficult.

In contrast, by the time the fourth quarter budget and change cycle hit in 2002, a few new employees had been brought in from the Big Five³⁶ consulting firms to support the sales line of business with metrics and analyses of both sales activities and the organization as a whole. With the introduction of these new experts came a new, quantifiable understanding of how the organization should be designed. In describing research conducted by Martin (1997), authors Shore and Wright say:

³⁶ By this time the Enron scandal had resulted in the demise of Anderson Consulting, and the Big Six had been reduced to the Big Five.

Unstable environments require a new kind of subject: not passive or docile [as in the manufacturing industries earlier in the century], but active, flexible workers who freely and continuously draw on their capacities and develop their potential to make themselves anew. (1997b:34)

Many of the employees who had been involved in the change effort the previous year had struggled with the lack of direction, and also (in some cases) with serious morale issues. And yet, it was not difficult for most of them to actively participate in these new change efforts with renewed energy. Acceptable ratios for revenue- to non-revenue-generating employees were defined, and the term 'span of control' quickly became familiar throughout TechSoft headquarters. Optimizing the span of control ratio meant that each Vice President should have responsibility for five Directors, each Director for five Managers, and each Manager should have at least two direct reports of a subordinate rank. In this way, each Vice President would optimally be responsible for an organization of sixty or more employees.³⁷ At the same time, participants in re-organization activities learned that the organization could support six non-revenue-generating employees for each revenue-generating employee, and that there was a fixed ratio of incoming sales dollars to overall organization headcount.

After extensive research, analysis, and discussion, it was determined that a move to a regional model (with independent operational units in the Northeast, South, Midwest, and West) would address multiple concerns. Cost savings

³⁷ There are always exceptions to these guidelines, of course. The European fast-trackers are one, and individuals who provide personal guidance and direction for executive management may also hold a Vice President title but not have a subordinate organization.

would be realized because of less dependence on corporate resources and less national travel, and it would also bring customer-facing employees closer to their customer on a regular basis. Although not on the scale of the previous year, some layoffs were anticipated as a result of these changes. However, the focus of the messages from management was on optimizing the organization and its human resources to enable the company to achieve success. In strategic terms, the changes would serve to increase profit margins (and shareholder value), and also customer satisfaction. In accordance with this new strategy, payout of variable compensation to employees would be partially dependent on achieving certain metrics of customer satisfaction. This market-oriented approach also deflected management responsibility for the organizational changes, so that the focus was not on individual members of senior management but rather externally on the 'competitive realities of the market'; this in spite of the fact that personal, political preferences had a very real part in how the organizational changes were determined and communicated.

In an interesting article, authors Knights and Morgan describe strategy as a critical component of managerial discourse. Discursive practices act as a disciplinary force that transforms "managers and employees alike into subjects who secure their sense of purpose and reality" by participating in the creation and execution of strategy (1991:252). In other words, during this period in 2001, the absence of an all-encompassing corporate strategy resulted in the failure of TechSoft to constitute us as subjects. We recognized the absence of a

structured discursive framework, and this in turn resulted in a frustration with the company and our roles within it, as well as with the remaining executive team. It also resulted in some individuals jockeying for recognition and authority. These were mostly individuals who wanted to take an active role in defining the corporate strategy. However, for the most part, our wish was for 'clear direction' into which we could put our energy.

A completely new management team was being put in place while these plans were being finalized. As 2002 drew to a close and management began to articulate the plans for the new year, it was very clear that the company was trying to be more market-focused, and to move closer to the customer. It was also clear that staff had to be reduced in accordance with the span of control and headcount guidelines. There also seemed to be little surprise when compensation was changed across the corporation to include customer satisfaction metrics. Because TechSoft problems had been consistently framed as market-related, a re-organization (and even headcount reductions) framed in response to those problems was made palatable. In fact, subjects "secure a sense of well-being through participation in strategic practices" (Knights & Morgan 1991:251), so in 2002, with a market-driven strategy clearly defined, and carefully orchestrated corporate communications, and it seemed almost effortless to me to make TechSoft employees complicit in the new corporate direction. In fact, it seemed to simply be a matter of communicating and consistently reinforcing the basic tenets and vocabulary of the new strategy, and

demonstrating alignment with the objectives of the global management team. In conjunction with the now all-pervasive market discourse (and perhaps also because of the serious economic downturn in late 2001 and early 2002) compliance of the remaining TechSoft employees seemed easily assured.

Anthropologists have a critical role to play in deconstructing the discourses that are used to normalize organizational change, and yet we have largely failed to do so. The drive of the high tech industry is largely (and unquestioningly) predicated on the need for innovation in response to consumer or market demand. Management theorists seem to accept creative destruction as a natural cycle for the industry. Since anthropologists working in the industry are often engaged in Research and Development, marketing, or consumer research functions, the urgency of the new is an integral part of their work lives as well; as employees in the high tech sector, we must demonstrate our understanding of and commitment to corporate objectives. Perhaps, then, ideas about the market, innovation, and change are difficult to deconstruct since the activities of our daily working lives are largely constituted in relation to them. Nonetheless, it is those anthropologists deeply embedded in the corporate context (like myself) that have the most intimate experience with change management efforts, and could provide significant insight into both how the discourse is constructed, and into the varied ways that employees respond to it. Until that time, this dissertation makes a unique contribution by grappling with the human cost of industry and corporate discourse on change.

CHAPTER 7 CONCLUSION

Overview

In this dissertation, I have described how management practices and the lives of employees are changing as global teams work in an increasingly dispersed fashion. I have attempted to show some of the recent economic and industry challenges being faced in the high tech industry. This dissertation has explored how one global corporation is attempting to evolve in response to these external factors, and what the impact has been on knowledge workers in its U.S. workforce. This dissertation has shown how the imperatives of daily work are reinforced through the highly rational rhetoric of finance and re-engineering, in combination with compelling psycho-social factors. Throughout this work, I have shown how Foucault's (1988b) four domains of power (labor or production technologies, language or sign systems, technologies of power, and technologies of the self) work in concert to shape the daily experience of employees at TechSoft. Ethnographic detail has demonstrated ways that subjects comply with, co-construct, or subvert these forms of power.

There are many familiar tools and practices at work at TechSoft, from socio-technical systems to human resource practices. The concurrent, growing prevalence of market-focused messages targeted at employees is not an accident; mechanisms of control have become increasingly cloaked in a market discourse that seeks to have the employee self-regulate in response to conditions outside the corporation. In closing, I would like to review two of the

key themes in this dissertation – consuming work and producing self – to summarize my research findings, bring together some conclusions, and suggest directions for future research.

Consuming Work

Through the stories and analysis in this dissertation, I hoped to transmit ideas of work being consuming in two ways: as an adjective describing a way of life that engulfs employees, and also as a verb showing how employees themselves consume work by virtue of how they conduct themselves in the work setting. The dictionary definition alone is foreboding: consume means “to destroy or expend by use; to use up” (Random House 2000). Work in the corporation today is demanding (and some might even argue destructive) at a number of levels. It alters the boundaries of work and home, dictates the rhythms of life at and outside of work, and demands mobility. At the same time, workers must willingly consume work, and demonstrate both their satisfaction with and commitment to corporate life in order to succeed.

Because knowledge work is not dependent on the fixed location of a manufacturing facility, it can be executed anywhere from a home office to an offshore contracting facility. In order to ensure work is getting done, new forms of surveillance have developed, which workers are required to consent to as a condition of employment. Thus, even when working in remote locations, workers are never completely sure who is watching them and by what means. In addition, as described in Chapters 2 and 3, working at home requires being

accessible, either by giving out a home number or by carrying a mobile device like a cell phone or a pager. These mobile technologies then also allow work to penetrate into home life. The balancing act between work and home has already been studied by Perlow (1998), Wacjman (1991), and others (U.S. Congress 1985), but this area is a rich area for ethnographic research, especially as more and more women (who may also choose to have families) embark on successful and demanding careers in the corporate arena.

As with many work settings, corporate life is highly deadline-driven. In Chapter 3 I described how the urgency in the high tech environment is compounded by devices like phone systems and pagers, that demand (and measure) instant responsiveness. In Chapters 5 and 6, I explained how financial reporting to press and analysts creates cyclical, quarterly performance pressure for the salesforce and the organizations that support them.

Although I did not address it in depth in the dissertation, the globalization of work does have a direct impact on employees and their daily activities. Work consumes time that might have otherwise been spent with family, and career development itself often demands a variety of sacrifices. Staying connected to dispersed team members may require phone calls at odd hours, and travel to ensure connectedness through face-to-face contact. For the most part these are conditions of employment. In many cases, career advancement is also dependent on another, more permanent kind of mobility – relocation of individuals and families. The impact of these activities on the local presents

important areas for further study. If the local is conceived of geographically, seldom-available neighbors and frequent changes in home ownership can only undermine a sense of community. And if the local is conceived at the family level, ethnographic research could lend insights into how worker's personal and families lives are expected to change in support of career aspirations.

For the corporation, it is also imperative for employees to remain satisfied with work, because their happiness makes them more productive. But this need to manage employee attitudes and understanding is crucial for other reasons as well; employee satisfaction is directly correlated to customer satisfaction, and employee conviction on key marketing messages correlates to brand strength. Both of these factors in turn contribute to the positive perception of the corporation in the market. As a result, employee perceptions are tightly managed and monitored; their ability to internalize (read: consume) and represent the corporate image to customers is a key element in the complex chemistry of company success.

Employees accept these conditions of work because as consumers they have become dependent on a quality of life that is afforded by their corporate salary and benefits (Deetz 1992:57, Rose 1999:66). In turn, they demonstrate their compliance through the performance of commitment (Jaffe 1995). In the process, they seek to produce themselves as corporate citizens and as unique commodities in the job market, which is the subject of the following section.

Producing Self

Du Gay (1996:57-8) has argued that it is precisely because corporations are working with dis-located employees with various cultural experiences that the discourse internal to the corporation is so urgent. But it is the internalization of this discourse in employees that, in the end, makes it totalizing. The performance review process (described in detail in Chapter 5) provides one of the most compelling examples of how employees use an existing corporate ritual to demonstrate their understanding of the corporate discourse and their ability to perform it, with the goal of achieving a measure of personal success.

Additional insights about the challenges of 'producing self' can be extracted from the change management efforts described in Chapter 6. During re-organizations, all hierarchies and existing 'best practices' are subject to review and re-definition. So in order to survive, employees must remain flexible in understanding existing categories, how they are perceived within those categories, and they must be prepared to re-produce themselves within categories as yet unknown. The realities of change management have been treated relatively briefly in this dissertation. Future ethnographic research could study these processes in greater detail and as they are transpiring, rather than providing a tidy summary of events after the fact. In fact, there are a number of anthropologists at work in corporations today who must surely experience organizational change, but their analysis is focused outwards on their company's needs, and not inwards on their own experience as employees in the corporate

setting. In depth research in this area would provide a better understanding of how change is rationalized, understood, and made tolerable at an individual level, and would give insights into a major aspect of corporate life today.

At the same time that understandings of self are shaped by the corporation, Deetz (1992:41) argues that institutions outside of the corporation are eroded. I would not disagree that traditional, geographically local support systems are eroded by these changing patterns of work. However, self-reliant individuals find other means of survival. For example, it appears based on my research that resourceful individuals establish dynamic, contingent, extra-institutional networks for support. Recent research by other social scientists has resulted in similar conclusions (Cross *et al* 2003, Fisher 2004). And, while social networks have been well-studied by social scientists, further study might help clarify whether there is a growing dependence on these types of networks, if the nature of these network has evolved as work becomes more dispersed, and if there are correlations to the increasing mobility demanded by industries and corporations that span the globe.

In Chapter 3, I briefly discussed consumer culture and market discourse inside the corporation as part of a larger economic trend called the culture of enterprise. This trend is not just about the changing nature of free markets and corporate practices, it also has to do with changes in individual behavior, and the way that producers are subordinated to the needs of consumers. But what happens when we consider that employees are consumers of corporate

discourse, and producers of their own careers? In this case it might be possible to argue that workers are producing themselves as commodities, and that their self-interest takes precedence over their interest in the corporation. Du Gay (1996:56) has argued that the language of enterprise extends into self-understanding “in which certain enterprising qualities – such as self-reliance, personal responsibility, boldness and a willingness to take risks in the pursuit of goals – are regarded as human virtues and rewarded as such.” Thus, the personal and emotional labor that the service economy requires encourages the “rationalization, commodification and exploitation of personal characteristics” (Sturdy 2001:6). I spoke a bit about this in Chapter 3, where employees in the IT Support Center came to measure their value to the organization (and their value relative to co-workers) based on weekly bar graphs on the bulletin board.

The tendency to seek out networks of support is not necessarily in contradiction with the desire to distinguish oneself. In fact, perhaps it is because employees feel the need to differentiate and market themselves internally that external networks of support (including identification with occupational groups) are necessary. This would present an interesting area for further study, as there might be an opportunity to draw parallels between the political and economic pressure internal to the corporation, and the role of networks as a sort of social movement to provide the support system and camaraderie that is (in some cases) missing internally.

In Closing

As mentioned in the Introduction, my research agreement with TechSoft required that staff from the legal and corporate communications department review the dissertation. When I first submitted chapters for review, I was still working on the Conclusion. One of the things that I was asked to consider for the Conclusion – if I could include it without compromising the integrity of my research – was whether I could balance the account of tumult and hardship with an update on the organizational and economic improvements that have occurred since the period of my study. I thought about it for a long time, and deliberated on how to accommodate the request while still being true to my analysis of TechSoft and the corporate landscape more broadly.

As a matter of fact, as I complete the writing of this dissertation, TechSoft is a much different place than it was during the period I documented. The organizational turmoil described in Chapter 6 was quite real, though certainly an extreme case. The current executive team of the U.S. subsidiary has now been in place for some time, and the company is now executing against a vision and plan that has been well communicated to the employee base. While there are occasional changes in management or in the organization, the time since the conclusion of my research period has been a relatively stable and well-executed period in the company's history. The U.S. subsidiary of TechSoft is in the middle of a substantial turnaround as a result of these internal efforts, as well as shifts in the economy and in the industry. And while there are still employees who are

reeling from the changes of the past several years, for the most part employee satisfaction (and concurrently customer satisfaction) has improved. At this point in time, TechSoft would be an ideal case study for the management literature. However, Rabinow said that “... modern discourses are characterized by enduring instability and only momentary coalescences which are soon contested” (1989:58), and like both Rabinow and Law (1994), I believe that TechSoft will change again before too long.

“But Natalie,” I can already hear my advisor telling me, “what does this contribute to *anthropology*?” And that is where I really struggle to articulate the positive outcome. While the U.S. economy has improved, and while the situation in the high tech industry is not as dire as it was, the daily conditions of work inside the corporation still remain very much the same. It still remains crucial to be flexible, adaptable, in tune with corporate strategy, and sensitive to the changing undercurrents of office politics. I would even argue that the turnaround in the economy, the industry, and the U.S. subsidiary may encourage employees to work even harder than they did before. That is not to suggest that the trends external to the corporation are irrelevant – to the contrary. The changes in world politics, in the economy, and the industry are the foundation for the market discourse that pervades corporate communications. Market discourse serves to relate employees directly to external realities through the lens of corporate objectives. In some ways, a major responsibility of management at TechSoft has become to educate the employee about the market, assuming that the employee

will self-regulate given the right information. Understanding these external factors and how they are transformed into compelling messages for employees is absolutely critical for making sense of life inside the corporation.

But these outcomes are shaped by trends that extend well beyond TechSoft. Neoliberalism and the flawed concept of free markets is often cited as the reason for this driving market discourse. I agree that there is something fundamentally wrong with a system that distributes wealth (and even basic social services like health care and education) unequally. However, I find that a critique of 'free markets' at such a high level makes it difficult to take action. Perhaps it is my positivist, action-oriented bias (that serves me well in the corporate world), or my limited knowledge of economics that leaves me feeling frustrated with these conclusions. In any case, I have found ideas about *corporate feudalism* (Korten 1999) or *wealth imperialism* (Kelly 2003) helpful in making sense of these trends and what we can do to effectuate change. Both theorists use these heavily loaded terms to compare the current age to historical periods where wealth and power was concentrated in the hands of a few. Corporations used to be formed for public good, and then disbanded when their services were no longer required (Kelly 2003:7). Now, corporations are shaping our societies, undermining the power of national governments, and seeking profit for shareholders before improving the lives of their own employees. These theorists argue that we have conflated political democracy with economic democracy, and that in the process we have lost sight of what it would involve to provide a true economic

democracy. While this alternate worldview is visionary and perhaps at times unrealistic about our ability to change the way corporations work, it nonetheless provides a more actionable path forward than a broad critique of the free market system in general. Within this type of theoretical framework, anthropology can offer a more human-centered way of thinking about business, one that perhaps this new democracy can build on.

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