Windows on the Workplace

Technology, Jobs, and the Organization of Office Work

Joan Greenbaum

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7. The Office of the Future is Everywhere

At first the work was mostly limited to call centers—phone American Express with a query about a corporate card bill, and there's a good chance you'll be talking to Delhi. But in the past two or three years companies have turned to India and the Philippines for much more sophisticated tasks: financial analysis, software design, tax preparation, and even the creation of PowerPoint presentations.

—*Fortune*, June 2003[1]

The much-heralded new economy of the 1990s, with its supposed recession-proof shock absorbers built on productivity generated by technology, did not materialize in the twenty-first century. In 2002, the Bureau of Labor Statistics reported that 32.1 million jobs in the United States had been lost, many of them in occupations requiring skill and higher education. The same statistics reported that 31.7 million jobs had been "created," but as most people know, these newer jobs include part-time and low-wage sales jobs like those at the super-discount chain Wal-Mart.[2] Indeed the economic lesson of the 1990s was not about the end of the business cycle in one country, but rather about the distribution of economic effects around the globe as employers sought out cheaper labor sources in country after country. Explaining the basics of capitalist labor economics and its built-in drive to lower *all* wages, *Business Week* put it this way:

> Indeed, trade theory suggests that the impact ultimately could be larger for high-skilled workers than it has been for the lesser-educated. As the world increasingly begins to look like one big labor pool, market forces should tend to move wages everywhere toward the same level for similar work, all else being equal.

The author, Aaron Bernstein, then goes on to explain how wages worldwide can race to the bottom: "After all," he says, "a software programmer with sufficient smarts and education needs only an office, a computer, and plenty of caffeine to do a good job. So if an Indian programmer can produce as much high-quality code as an American one, wage equalization for programmers may occur at a faster pace than it has for apparel workers."[3]

To economists, then, the outsourcing of high-end jobs—computer programming, accounting, engineering and architectural planning—to countries with lower wages should have been expected, although the business press seemed at first to be surprised by it. In the 1990s, the pundits in the press had continually reported management's message of the increasing need for more knowledge workers. But now it was becoming clear that the combination of embedding routine parts of jobs into computer software and databases, coupled with the decreasing costs of information infrastructure, opened the doors for an exodus of jobs from first world countries like the United States and Britain to former colonial and Soviet bloc countries where workers are educated, disciplined, and hungry for this kind of work.

But the shock value of the media recognizing that high-tech and high-skill jobs could be exported was but one part of the story about the changing nature of work. The other parts had been seen on a smaller scale throughout the 1990s, namely, the increasing part-time and contingent nature of the jobs that stayed in this country; the extended reliance on defining work in terms of projects or products instead of specific hours worked; enhanced expectations that consumers would do their own work, on the Web or on the phone; and the tremendous reduction in the cost of computer hardware, software, and networks. All of which came together to create what seemed to be a vortex that sucked jobs out of the country and made the remaining ones more stressful and more full of risks. For remaining workers these risks included not knowing where the next job or project would come from, as well as the very down-to-earth risk of getting sick and not having medical insurance or paid sick leave.

In an article entitled "Is Your Job Next?" *Business Week* explained the steps to offshore work:

> It's globalization's next wave—and one of the biggest trends reshaping the global economy. The first wave started two decades ago with the exodus of jobs making shoes, cheap electronics, and toys to developing countries. After that, simple service work, like processing credit-card receipts, and mind-numbing digital toil, like writing software code, began fleeing high-cost countries. For corporations that had previously outsourced jobs like product design, technical support, and employee benefits to subcontractors in their home country, the step for corporations in the U.S., France, Germany and Scandinavia was shifting jobs to overseas subcontracting firms. ...Now, all kinds of knowledge work can be done almost anywhere.[4]

All these changes are part of a familiar economic pattern of shifting financial risk from large organizations to smaller ones, and from higher management to the individual worker. In the 1980s, managers talked of needing "just-in-time" products in order to compete in the global market. By the late 1990s, in addition to flexible product inventories, employees too have become a just-in-time variable. Originally "just in time" meant that parts and products would be produced, as they were needed, thus reducing the expense of keeping inventories. In the world of office work, just-in-time workers are those drawn from the contingent workforce, where companies hire them only during peak periods. This has many advantages for the firm but comparatively few for the worker, except for those self-employed consultants in professional areas, many of whom say that they prefer this arrangement.[5]

Some of the strategies in earlier waves of reorganization had been borrowed (somewhat loosely) from Japanese management strategies, which caught the interest of U.S. managers in the 1980s. For instance, autoworkers in Japan assembled cars, but the majority of parts were made by smaller subcontracting firms whose "peripheral" workers could be called in as needed. In the United States as in Japan this led to a two-tiered workforce: core employees with the "parent" firm and peripheral workers in the subcontracting firms, each with different pay scales and job titles. Core workers are in effect more permanent employees who are more likely to have

health benefits, sick leave, and pensions. Peripheral workers, on the other hand, are part of what economists call the secondary labor market, with their job security and wages dependent on the sales of the subcontractor's product, as well as on the number of other peripheral workers competing for their jobs. It had been a successful system for producing low-priced cars, but it is a brutal way to treat workers in the labor market.[6]

By now it is clear that the creation of a "just-in-time" production process has spread further and been applied throughout the white-collar sector, not only in the United States and Japan, but throughout the world. Now parent companies, including large firms in India, squeeze competitive prices out of subcontracting firms, who in turn squeeze lower-priced contracts out of the large reserve labor pool of individual freelancers and self-employed workers, many of whom are willing to take whatever comes along to pay the bills.

Knowledge Industry?

The center of the knowledge industry—the university—is one of the most visible places to see how work and the places it is done in have changed.[7] According to the American Association of University Professors (AAUP) three out of five positions in universities in the United States are taught by full-time and part-time contingent, or non-tenure track, faculty. Only one-fourth of these contingent instructors have appointments of more than two semesters.[8] This is a hefty temporary workforce, charged with preparing the next generation of educated workers.

Traditionally the majority of adjuncts had been graduate students, for whom teaching part-time was a kind of apprenticeship for working their way through their doctoral studies. Increasingly, however, universities have relied on hiring more part-timers and non-tenured faculty to lower labor costs and increase the number of sections taught and thus raise university income. This push to cut costs and increase revenue at universities, linked to the need for income by out-of-work and part-time professionals, has resulted in a growing army of freelance academics. Marilyn, a sociology adjunct instructor, teaching at two different colleges, tells how scattered and time-intensive this work is:

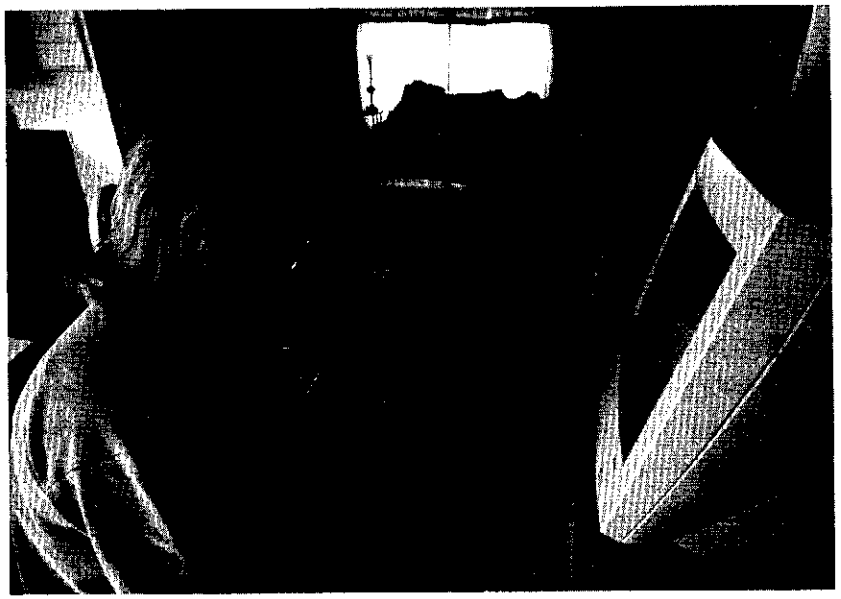
"This is my office," she says, lifting the lid on the trunk of her car. "And I'm lucky to have it. Many people I know commute by bus or train and they have to lug around this much stuff." For Marilyn, the "stuff" she points to is barely contained in two cardboard boxes; one largely made up of the tools of her trade—her books, a laptop computer, chalk, pens and paper, some lecture and class notes and some notebooks; the other holds student papers to grade.

"I'm teaching three courses this semester at two different colleges. One course has forty-five students, but the other two are just under thirty. You do the math," she says, pointing at the pile of student papers. "With an average of thirty students in a class and two written exams and two research/project papers per course, that's 120 written papers per course or 360 for the semester. Multiply that times the number of pages per paper, and it's out of control; I'm reading every morning before class and late into the evenings, and of course most of the weekend."

Marilyn had hoped to be in a tenure-track job by now, but has admittedly slowed down on her work toward her doctorate because the academic job market is so weak and because her adjunct work keeps her from her research. If she works for a whole year her pay for three courses a semester (the equivalent of a full-time job) is under $25,000 a year.

Tenured or more permanent jobs inside of university walls have also changed. Everyone I interviewed spoke of increasing workload, which ranged from more students per semester to more papers to grade, to more time spent on a computer doing administrative work, and to more e-mail to answer. The last is a relatively new phenomenon in the practice of teaching and learning. But as both faculty and students have become more used to being online, e-mail and course websites have become a common extension of the educational environment. The U.S. Department of Education reported that in 2001—the first wave of online courses—there were almost 3 million students enrolled in for-credit online courses, up from 1.3 million in 1997.[9]

At another college, Anita, a full-time, tenured associate professor invited me into her office to show me her new course site. Five years earlier, in an attempt "to enable faculty to be comfortable with computers" the college had given each faculty member a computer, along with an e-mail account and



A home office. [Jim West]

access to the Internet. While the college invested part of a new student technology fee for faculty and student computers, there were no funds allocated for additional office space or computer furniture. I had to stand in the doorway of Anita's office to peer over her shoulder at the computer monitor that was plunked on top of her desk, well above her eye level. She was using a packaged computer application called Blackboard, to put together supplemental materials for the students in one of her classroom-based courses.

"I was offered the chance to do an online course, but I didn't want to do it until I tried it out. So this course," she says as she points to a website for an Introduction to Computing course, "is one that I was already teaching, and I just thought that I would add a website with course materials and a Discussion Board. Ha. It's a great idea, and the students seem to love it and I love it, but boy is it more work. They think I'm available 24/7: 'Professor, I have one more question.' they write, and I'm an idiot, because I am reading it at 2 A.M. I'm going to have to learn how to be more disciplined with my time."

Many faculty, like other professional workers, see the extension of their working day as their problem—one they have to work out by managing their time more carefully. But the reality of the situation is that the time squeeze on people in work and home settings is a societal issue. While it is easy to "blame it on the Internet" the rising human cost of overwork and the blurred boundaries between home, commuting, work, study, shopping, ordering, and other activities can't simply be placed at the door of the Internet as if it were an outside revolutionizing force.

We experience all sorts of change in our daily lives in two contradictory ways. On the one hand we experience some things like changes in work practice as inching along at an almost incremental pace. On the other hand we see some change like that involving technology, as charging at us with incredible speed. Much of our perception of change is shaped by what we read and hear and are taught to look for. Technological change, we are told, is revolutionary, and its history is told in galloping episodes like the introduction of the printing press, the steam engine, and the computer, each leading to massive changes in society. Work and home life, we are led to believe, is fairly constant over time, with expectations changing every generation or so, through economic conditions like the Great Depression of the 1930s, or bottom-up social change like the struggle for civil and economic rights for Black Americans and women in the 1960s and 1970s.[10] Yet social and organizational change is often as rapid and visible as the technical gadgets we see around us.

Both perceptions feel valid at different points in time, but the narrative we are told about the revolutionary nature of technology dominates our view of experience.[11] Anita, for example, felt that being online made the students perceive that she was available around the clock. And indeed e-mail and websites have this potential. But her college had invested in computers and software and had hired many computer support personnel to lay the foundation long before she began to extend her course on-line. Her decision to extend her course—a change in work practice—was the impetus that led her to experience the overload. The teaching work practice had been undergoing change for a number of years as universities, taking a page from the corporate world, learned to rely more heavily on quantitative measurements for faculty productivity.

In the late 1990s universities embraced online education as a way of reaching more students and cutting costs. As corporations had rushed to usher in a new era of "virtual offices" in the 1990s, so had universities been quick to predict a future of "distance learning" and enhanced university earnings without the brick-and-mortar expense of expanding campuses. Both the virtual office and the online university didn't come along with the revolutionary speed they were supposed to. Indeed, by 2001–02 major universities, like Columbia and New York University, found that the specialized, online companies they had announced with fanfare were not financially viable.[12] But the following year other large universities were back to expanding their online course offerings, this time using the corporate model of expanding to new markets through buying and merging with universities in other countries. An example of this occurred in 2003, when the New School University, a leader in adult education, formed a partnership with the Open University in England, the world's largest distance education system.[13]

Union organizing in higher education has been picking up steam, particularly among part-time and graduate student workers. The United Auto Workers (called the "United Academic Workers" in an article in the *Chronicle of Higher Education*) jumped into the organizing stream along with the American Federation of Teachers (AFT) and the National Educational Association (NEA) in organizing part-time university employees —one of the fastest-growing segments of labor organizing in the early twenty-first century.[14]

University employees, like medical doctors, are finding their decision making constrained by bureaucratic levels of corporate managers and vice presidents. Ironically, as corporate managers now claim that the older hierarchical corporate structure is inefficient, this model is being propagated among formerly independent professionals in health care and higher education. There is little new in this pattern, for increased levels of management have been added to control those workers thought to be too independent—from craftsman in the early industrial period to bookkeepers and accountants in the early white collar post–Second World War period. Once managerial control over the workers and the work process is achieved, upper man-

agement releases some hierarchical reins, as professionals then internalize the demands and don't need to be reminded of the rules on a routine basis.[15]

Not in One Place

In the twenty-first century, large international corporations continued to fire midlevel managerial, professional, and administrative workers, as they had begun to do in the downsizing craze of the early 1990s. Bank employees, the cornerstone of the financial service sector, were particularly affected as broad-stroke organizational changes like continued mergers, closed branch offices, and enhanced reliance on computer and Web-based banking were pushed on the workforce in waves. This meant massive changes for those still employed in banking. Among the interviews I conducted in an international megabank, I spoke with Julia, an officer in charge of arranging the technical and physical support for employee moves within the company. After fifteen minutes spent passing security at the New York office, Julia greeted me at the electronic card entry point to her floor. Once past the heavy glass doors we were in a narrow interior corridor and surrounded by chairs, desks, tables, cables, and stacks of computer equipment. Edging our way past the jumble she ushered me into an interior office with a traditional dark wood desk and leather chairs.

> *"Our department handles everything from soup to nuts," she explained as she eased herself into a deep armchair. "I need to be present to see if the cables are being pulled in the right places and to make sure that each person who is moved gets the connections and the hardware and software they need. But with all the mergers and moves and combined offices it takes a lot of time. Top management wants it done right away, but they don't understand a thing about how complex this really is. While I am running around worrying about where the technology and furniture will go, I have to also be concerned with how and why the different versions of software from the merged companies and departments don't fit together."*

Floor plans and furniture and hardware and software compatibility are not Julia's only worries. The last merger, the sixth in her tenure, brought her bank and a brokerage firm together, and "it's not so much the different

Scott Adams, creator of the comic strip DILBERT stands in "Dilbert's Ultimate Cubicle" which includes a hammock, aquarium, rotating floor modules, shoe polisher, and a self-timing guest seat. The cubicle was designed in resonse to "thousands of readers [who] have e-mailed me with gripes about their cubicles. I feel their pain because I served a 16-year sentence in cubicles during my corporate career," said Adams. (AP Photo/Bob Riha Jr.)

computer applications, but the cultures that don't mix," she says. "Mergers and moves are a nightmare."

Julia worked her way up to vice president in the technology services division and is proud of the fact that she earns a "six-figure" salary. As a Caribbean-American woman who started her corporate rise in computer operations in the late 1980s, she is part of a women's group within the company that concerns itself with the all too opaque glass ceiling. "Conversations and decisions in the bar and the golf club are still the rule," she explains, "and pay disparities abound." The women's group meets on a regular basis, comparing notes and making plans around issues like care for aging parents, and realistic flex-time arrangements.

Flexible working hours are a double-edged sword. Julia's workweek—an incredibly fast-paced one with ten-, twelve-, and sometimes fourteen-hour

days—often stretches to seven and eight days. Her family worries that her health is affected, fearing that she is working herself to death, what the Japanese call *karoshi*. And other women in her company women's group report increases in what their doctors say are stress-related illnesses. This is no small matter. A Gallop survey reported that more than 40 percent of professional and clerical workers complained about stress on a daily or close to daily basis. Similarly, the U.S. Department of Health Services reported that more than half of 40,000 workers they studied reported "a lot or a moderate amount of stress."[16]

The fast tempo and the stress are also striking in company levels far below Julia's where with each move and merger, workers are given a "choice" of remaining with the company only if they are willing to be relocated. I interviewed a large group of employees at the same bank when they were enrolled in the company-sponsored education and training program at a training center. "Job security is 'relo,'" one woman explained to me with the slang term used for "relocation." She had agreed to relocate in Texas rather than be on the "cut list." Most of the women I met, however, commented that relocation was not an option with their kids in school and the difficulty of finding new child care arrangements. Some were offered new titles within the metropolitan region, although the titles did not come with raises, and in many cases the commuting time was markedly increased. [17]

The workers, almost all of whom were women, were a technologically savvy group, having either worked with the banks' computer applications or in the IT department. Their concerns, in addition to the personal trauma of having to re-interview for their jobs, and wondering where their next "relo" might land them, focused on the software nightmare of the incompatible computer applications following each merger. Their arguments, like others I heard in similar situations in other organizations, ran along the lines of "they always promise us that it will be easier to use, but why isn't it?" and "why don't they listen to us, we know how it works."

Such comments are symptomatic of computer software applications that are built top-down by management dictate, rather than involving the workers who actually know what the systems do. Explaining how a "plain vanilla package" from one of the merged banks didn't fit in with the work

practices of the other bank, a woman in the IT department elaborated on the problems: "We *have* to make it work. The vendors who supplied it aren't supporting it any longer, and the branches and the back office are using different versions." And for the workers in the remaining branch and back offices, the problems mount because as one woman explained, "We can't override the system anymore."

"Overriding the system" in their jobs, like in millions of other offices, is a common occurrence. It happens frequently when, for example, a customer calls with a problem that is not listed on the computer screen. Standard systems design practices call for computer systems to be designed by management, and as we have seen in other aspects of work, management's intent is to change work processes and to further control them. When call-center operators can't answer a customer's question this isn't considered a loss of productivity, because the computer system itself is designed to count only the transactions listed on the menu. For workers these numbers mean a lot, since performance evaluations and possible raises are based on counts of transactions. In this way, systems that can't be worked around are an additional method for monitoring workers.

According to the American Management Association, 77.7 percent of companies reported that they electronically monitored their workers on a routine basis. As Andrew Ross, author of *No-Collar: The Human Workplace and Its Hidden Costs*, put it:

> It turned out that supervision of workers' time and actions was even more systematic in the computerized workplace than it had been under the factory foreman.[18]

Through the Interface

Earlier chapters in this book have recounted how the work of people in the computer field has changed since its inception in the 1950s. Not surprisingly, the evolution of this type of knowledge work followed a similar pattern, resulting, as discussed in the opening of this chapter, in computer programming and software engineering jobs being transferred to lower-waged workers outside of industrialized countries. But how did it get this way? And why, in the lives of the people living through it, does it appear that the

pace of change is increasing? In her fascinating book, *White Collar Sweatshop,* Jill Andresky Fraser argued:

> It now appears that white-collar workers can be sorted into three basic categories: those whose jobs have been reengineered by technology; those who are being replaced by technology (as when nearly 180,000 bank tellers were replaced by ATMs between 1983 and 1993); and those whose lives appear—at least for now—to be resistant to such changes, typically because of the high levels of skill, experience or creativity their jobs demand.

But she goes on to explain, "That third category is small and shrinking, seemingly before our eyes."[19]

Fraser's argument, like many others, is that "new technological advances have pushed computer and other electronic capabilities far beyond the realm most people would have imagined even a decade ago."[20] While this certainly seems to match our perception, the ways that high levels of skill and creativity are squeezed out of jobs is not just through the introduction of technologies.

As with earlier waves of so-called de-skilling, computer programmers didn't necessarily lose their skill; rather it was the value and the perception of their skill that was taken away by management reorganization and dividing up labor. One of the main factors leading to the outsourcing of hundreds of thousands of IT jobs, was upper-management's belief that such moves were necessary and possible. Strategic managers seem to believe that programmers, like call-center operators, bank tellers, and other declining occupations, were expendable—at least in their own country. In 2003, a senior Microsoft vice president told an audience of managers to "pick something to move offshore today."[21] His proclamation came before realistic numbers were available on the full costs of outsourcing work, yet major corporations jumped into this fast-moving exodus of jobs.

Meanwhile, programming skills, in terms of number and range of programming languages, application tools, and Web design principles have been expanding. In the mid-1990s, for example, a programmer would have been expected to know something like HTML code and a computer language like C, but today a wide and changing range of Web tools like Dreamweaver and

Flash, along with coding languages like Pearl, C++, and JAVA, are required. Companies also require higher educational credentials including at least a bachelor's degree, rather than an associate degree, and in some areas graduate degrees in Computer Science or an M.B.A. in Information Technology.

Until recently white-collar workers were not likely to unionize. One reason for this was the notion that office workers would expect to be treated professionally and therefore didn't think they needed union protection. But another reason was the strong reluctance on the part of the entrenched, largely white-male industrial unions to organize office workers, who were, for the most part, better educated and different from them. Now, however, union organizing of professional and technical workers is heating up as these workers are brought into the de-skilling model of industrial work and as unions wake up to these expanding segments of the labor force. The Communication Workers of America (CWA) has made inroads among Technical, Office and Professional (TOP) workers, particularly in the high-tech Seattle area, and the Professional Employees department of the AFL-CIO, representing 4 million technical, professional, and skilled white-collar workers—is putting on a nationwide push for organizing technical and professional workers. An AFL-CIO report entitled "The Professional and Technical Work Force: A New Frontier for Unions," argues that while blue-collar unionism is declining with the continuing drop in the number of factory workers, "professional specialists," including technical workers, are the fastest-growing part of the labor force.[22] As we will see in the next section, these jobs are not expanding at anywhere near the rate projected at the end of the twentieth century.

Similarly, legal actions like one by IBM employees around the loss of their secure pension benefits resulted in an employee association affiliated with the Communication Workers of America (CWA)—an unthinkable notion only a decade ago. And the class-action lawsuit by temporary workers at Microsoft—called "permatemps" by those in the IT field—restricted the way Microsoft hires and treats its contingent workers. Union struggles are also following outsourced IT work. In an interesting twist in Ireland, for example, unionized Bank of Ireland IT employees threatened a strike in order to head off the bank's plans to outsource computer work to the

American firm Hewlett-Packard (HP), which had bid to manage all of the bank's networks and computer systems.[23]

Un-, Under- and Differently Employed

Economists and government analysts in industrialized nations around the globe point to the remarkably low unemployment rate in the United States as an example of how a successful flexible labor market should work. In particular, government analysts pushing newer "market liberalization" strategies in Eastern Europe and South America claim that the U.S. unemployment rate of between 5.5 and 6.5 percent is an indication that removing government regulations and doing away with labor union rules results in a healthy and growing economy. What is not mentioned, however, is the fact that the official U.S. rate is based on only a sample of households *self*-reporting their employment—unlike Canada, Australia, and other developed countries which have much higher rates of unemployment based on actual unemployment claims. Nor is the issue of what the unemployment rate leaves out discussed.

Every month the Bureau of Labor Statistics conducts a telephone survey of 60,000 sampled households in the United States asking respondents if they worked or looked for work during the previous week. This sample is then used to project an estimated number for the entire labor force. Not included in the working population are the 1.5 million "discouraged workers"—people who have stopped actively looking for work. Another group left out consists of those who have retired or just dropped out of the labor market. There are no official statistics for this group, but all reports indicate that the number of people who are taking early retirement or saying that they are retired when they can no longer find work is increasing rapidly.[24]

Also hidden behind the numbers are the almost five million part-time workers who say that they want to be working full-time, the so-called underemployed. Another group, and a rapidly emerging presence, is the close to 10 million people in "alternative work arrangements" who say they are self-employed. If these categories were included in the unemployment statistics, as they are more likely to be in other countries, the unemployment rate in the United States would be approximately 10 percent, similar to that of other economies.[25] Other economists put the number at over 12 percent if the rate were to also include the underemployed.[26]

The fault with the U. S. statistics is not so much a sin of commission but one of omission, based on earlier notions of who is in the workforce. Up until the economic shake-ups in the 1990s, when the so-called New Economy came into being, employment data could somewhat reliably be counted by surveying the household samples and by collecting data from company payrolls. But these models were based on the idea that being employed meant being on the payroll of one employer. The increases in the number of contingent and alternative work arrangements now being reported by the Bureau of Labor Statistics reflect the shift away from employment in one place for a predictable period of time. The strong work ethic among American workers points to the possibility that people *say* that they are employed even if they are not. It is also probable that many people reporting themselves as temporary workers, part-time, or self-employed are seriously underemployed. From a societal perspective this results in the wasted potential of millions of people, and on an individual level it causes emotional pain along with sudden drops in income and loss of health insurance.

Meanwhile, by all accounts people who are employed are working longer hours. Over 25 million workers reported that they spend more than forty-nine hours a week working.[27] In professional and technical jobs in particular, the working day has intensified by expectations of working through lunch and doubling up on work tasks. And if the workday is not actually extended in the office, the need to stay connected via mobile phone, Personal Digital Assistants (PDAs) such as Blackberries, and Internet connections has also lengthened the working day. A Bureau of Labor Statistics special supplement in May 2001 reported that 25 million Americans worked from home for some amount of time.[28] Workers in administrative support positions are also experiencing stretched-out and intensified workdays as lunch breaks are shortened in order to get tasks done. While e-mail was a boon to people in administrative support positions in its early days, now workers report that just catching up on e-mail creates more work than they can handle in an eight-hour workday. Many people blame themselves for being inefficient in their

use of time. It is not the time that is the problem, however, but rather the expectation that more tasks, including e-mail, returned phone calls, reports, spreadsheets, meetings, and conference arrangements need to get done.[29]

Hidden in Plain Sight

While the media reports the number of jobs slipping out of the country and the number of workers retiring, there is surprisingly little about the fact that we, the consumers, are doing our own unpaid labor. Remember a time when you didn't order tickets online? Or prescriptions? Or clothes? And remember a time when you called a doctor's office or an insurance company and got a person on the phone instead of a command to press "0" to speak to a person. There are no reliable statistics on how much daily-living work is actually being done at home or at work by people trying to arrange their lives. But by all accounts people are spending far more time than they had planned to buying, scheduling, or otherwise organizing their daily lives via the Web or through automated telephone systems. These Web and telephone systems are designed to cut down on the number of employed workers by shunting non-paid work onto the shoulders of everyone.

In *The Making of a Cybertariat*, Ursula Huws lays out the logic of how consumption is turned into work.[30] In buying goods and services through the Web we are ordering services that have been turned into commodities, propelling new forms of consumer behavior. Interestingly, she notes that the way we consume goods and services through automated systems is "leading to a Taylorization of private life."[31] In her view, it is not just jobs that are made more routine, but the very way we search the Web and press buttons for telephone orders that routinizes our daily life.

Back in 1988, Barbara Garson explained how jobs were being made more routine in *The Electronic Sweatshop*. She analyzed how a script was developed for reservation clerks at an airline that "had divided the two-minute reservation conversation into segments—opening, sales pitch, probe, and close—and provided a set of interchangeable conversation modules for each segment."[32]

Today it would be hard to find a website or a telephone system that veers from this model. People trying to discuss problems on the telephone about

their telephone bill, mortgage, rent, insurance payment, etc., report having to press what seems to be an endless series of numbers before they can get the information they need. And the same is said of website navigation: the category one is looking for is often not there or very hard to find. Just like the complaint that bank workers have about not being able to work around the computer system, consumers find that their unpaid labor is a great deal of work as they try to find ways around company websites or phone systems to get to a human being.

Where we are actually sitting when we do the work of daily living is also problematic, as more and more people find they run into problems if they spend too much time online at home and have problems getting work done if they let their personal business spill over to the office computer or phone. The traditional line between public and private space is also visibly blurred in terms of the way we experience the places where we do this additional work. People I spoke to told of moving the computer from the living room to the bedroom, only to find that it angered a spouse, or that they were upset to find themselves online in the middle of the night. One woman said that she had found the perfect place by making a "nest for myself" when she moved her computer into a closet.

Home is becoming a contested terrain, since computers are used in almost any room for multiple purposes, including unpaid labor like ordering food and arranging appointments, and entertainment. While we experience home as a place to work, play, and carry out the chores of daily life, the way these activities are done is reshaping our sense of home as a place. Dolores Hayden, an urban planner who has written extensively about place, says that "*place* is one of the trickiest words in the English language, a suitcase so overfilled one can never shut the lid."[33] Place is different from the broader term *space* because it carries with it the meanings, memories, attachments, and identity we connect with places. In *The Power of Place*, Hayden, like geographer Henri Lefebvre, argues for understanding place as the production of space—a process that is economic, political and social.

There is little research about how we experience a sense of place when we are navigating in cyberspace (a term coined in William Gibson's 1984

novel *Neuromancer*). But we do know where we are when we are sitting at a computer or holding a phone. And that place may no longer be simply "home" or work but in-between areas that we carve out as we overlap many tasks. Architects are beginning to take the question of home/work space more seriously in home design.[34]

While parts of many homes are beginning to look more like workplaces, some companies are trying to add features to make work spaces look like home. Office spaces often include kitchenettes with refrigerators and microwave ovens, and now some organizations are also putting in on-site washing machines, dry cleaners, workout rooms, and child care services. Many upper-level managers have showers and dressing rooms, and some companies even offer personal training services and massages. These more homelike features are added because professional and managerial employees complain that they do not have enough time to get out during the week to take care of everything.[35]

Most automated systems—phone or computer—promise to "serve the customer better" and "to save time," yet few people are fooled when they end up spending more time searching for something on the Web or waiting on hold to speak to an actual person. True, there is a great deal of information available on the Web, from weather to train and flight schedules, hotels, car rentals, and film schedules. But the list of daily chores and the time it takes to do them seems to grow exponentially as more and more information is put online or embedded into automated telephone systems.

It's interesting to see that the telecommuting forecasts of the 1980s (work from home but still connected to an office) and the virtual office talk of the 1990s (work from a temporary time-shared cubicle) have morphed into a more hybrid sense of home/office/work/transit/consumer space. Yet, hidden in plain sight, is the fact that as the tempo of each activity picks up and blends in with other activities we need to look carefully at not just the changes in the physical division of labor we are experiencing but at the way our physical environments are merging. As I have reported throughout this book, researchers have studied the way work has been reorganized and technology designed to speed and blend work practices. But the newer forms of working arrangements need far more study in terms of where and

when they are done and how they coexist with multiple activities. All preliminary evidence points to increased stress levels, at home, at work, and on the road. And while these hybrid life activities and the places they are done from all appear to spring out of increased use of mobile technologies (phone, laptops, Palm devices, and the like), the technologies themselves were designed to support reorganized work/lives. What we can do about these changes is everyone's business.