

CSE/ISE 312

Chapter 6: Work

What We Will Cover

- Changes, Fears and Questions
- The Impact on Employment
 - Job destruction and creation
 - Changing skills and skill levels
 - Telecommuting
 - A global workforce
- Employee Communication and Monitoring
 - Learning about job applicants
 - Work vs. personal communications

Changes, Fears and Questions

- The introduction of computers in the workplace generated many fears
 - Mass unemployment due to increased efficiency
 - The need for increased skill and training widens the earning gap

Changes, Fears and Questions

- New trends still generating fears
 - Offshoring of jobs will lead to mass unemployment
 - Employers learn about job applicants from databases
 - Telecommuting problematic for workers/society?
 - Employers use technology to monitor their employees

The Impact on Employment

Job destruction and creation:

- A successful technology eliminates or reduces some jobs but creates others
 - Reduced the need for telephone operators, electric meter readers, mid-level managers
- New industries arise
 - Chip industry, Internet, Cellular communications, clouds, smartphone software
- Lower prices increase demand and create jobs
 - Music industry changed from serving the wealthy to serving the masses, employing more than just musicians

Changing Skill Levels

- The new jobs created from computers are different from the jobs eliminated
- New jobs such as computer engineer and system analysts require a college degree, where jobs such as bank tellers, customer service representatives and clerks do not
- Companies are more willing to hire people without specific skills when they can train new people quickly and use automated support systems

Telecommuting

- Working at home using a computer electronically linked to one's place of employment
- Mobile office using a laptop, working out of your car or at customer locations
- Fulltime and part-time telecommuting

Telecommuting Issues

Benefits

- Reduces employer overhead
- Reduces need for large offices
- Employees are more productive, satisfied, and loyal
- Reduces traffic congestion, pollution, gasoline use, and stress
- Reduces time and expenses for commuting and money spent on work clothes
- Allows work to continue after blizzards, hurricanes

Problems

- Employers see resentment from those who have to work at the office
- For some telecommuting employees, corporation loyalty weakens
- Odd work hours
- Cost for office space has shifted to the employee
- Security risks when work and personal activities reside on the same computer

Side Effects and Restrictions

- Impact on community
 - Noise and traffic brought to residential neighborhood?
 - Local zoning laws ban receiving deliveries or customers at home
- Working condition at home
 - Employer must ensure workplace regulations at home?

A Global Workforce

- **Outsourcing** - a company pays another company to build parts for its products or services instead of performing those tasks itself
- **Offshoring** - the practice of moving business processes or services to another country, especially overseas, to reduce costs
- **Inshoring** - when another company employs thousands of people in the U.S. Almost 5% of U.S. workers work for foreign companies

A Global Workforce

- Problems and side effects of offshoring:
 - Consumers complain about customer service representatives, because accents are difficult to understand
 - Employees in U.S. companies need new job skills (e.g., managing, working with foreign colleagues)
 - Increased demand for high-skill workers in other countries forces salaries up

Getting a Job

Technology, the Web significantly changed how to get a job

- Learning about jobs and companies
 - Online company histories and annual reports
 - Job search and resume sites
 - Online training to learn new skills
- Learning about applicants and employees
 - Search online newsgroups and social networks
 - Prospective employees may craft an online profile and presence geared towards the job they want
 - Hire data-collection agencies such as ChoicePoint

Employee Monitoring

Background:

- Monitoring is not new
 - Early monitoring was mostly ‘blue-collar’ (factory) and ‘pink-collar’ (telephone and clerical) jobs
 - Time-clocks and logs of total hours worked
 - Output counts at the end of the day
 - Bosses patrolled the aisles watching workers

Data Entry, Phone Work, Retail

- Data entry
 - Key stroke quotas
 - Public performance records to encourage competition
 - Beep when workers pause
- Phone work
 - Number and duration of calls
 - Idle time between calls
 - Randomly listen in on calls
- Retail
 - Surveillance to reduce theft by employees

Location Monitoring

- Cards and badges used as electronic keys increase security but track employee movements
- GPS tracks an employee's location
 - Used in some hospitals to track nurse locations for emergency purposes, but also shows where they are at lunch or when they use the bathroom
 - Used to track long-haul trucks to reduce theft and optimize delivery schedules, but also detects driving speeds and duration of rest breaks
- Employees often complain of loss of privacy

E-Mail, Blogging, and Web Use

- E-mail and voice mail at work
- Employees often assume passwords mean they are private
- Roughly half of major companies in the U.S. monitor or search employee e-mail, voice mail, or computer files
- Most companies monitor infrequently, some routinely intercept all e-mail
- Courts put heavy weight on the fact that computers, mail, and phone systems are owned by the employer who provides them for business purposes

E-Mail, Blogging, and Web Use

- Some companies block specific sites (e.g. adult content, sports sites, job search sites, social-network sites)
- Employees spend time on non-work activities on the Web
- Concerns over security threats such as viruses and other malicious software
- Concerns about inappropriate activities by employees (e.g., harassment, unprofessional comment)