

ETHICS OF IT ORGANIZATIONS

Key Ethical Issues for Organizations

- Use of nontraditional workers
- Handling a whistle-blowing incident
- Transitioning to green computing
 - **Green computing:** Efforts directed toward the efficient design, manufacture, operation, and disposal of IT-related products
- Need for a code to address ethical issues regarding:
 - Worker safety and fairness
 - Environmental responsibility
 - Business efficiency

Need for Nontraditional Workers

- Organizations require nontraditional workers due to the long term shortage of trained and experienced IT workers
- Sources for nontraditional workers
 - Contingent workers
 - Outsourced offshore workers

Contingent Workers

- **Contingent work:** Job situation in which an individual does not have an explicit or implicit contract for long-term employment
- Types
 - Independent contractors
 - Temporary workers hired through employment agencies
 - On-call or day laborers
 - On-site workers provided by contract firms

Contingent Workers

- Organizations can obtain contingent workers through temporary staffing firms or employee leasing organizations
 - **Employee leasing:** Subscribing firm transfers all or part of its workforce to the leasing firm
 - Subscribing firm leases the workers, but they remain employees of the leasing firm
 - **Coemployment relationship:** Two employers have actual or potential legal rights and duties with respect to the same employee or group of employees

Contingent Workers

Advantages

- Firm does not have to provide employee benefits
- Highly flexible as firms can release workers when they are no longer needed
- Firm does not incur training costs

Disadvantages

- Workers' lack loyalty to the company results in low commitment to work and high turnover rates
- Workers gain additional skills and knowledge while working for a company, which are lost to the company when the worker departs at a project's completion

Deciding When to Use Contingent Workers

- Completing a project quickly and cheaply versus developing people within the organization
- If the project requires unique skills that are not necessary for future projects
- Not for projects that have access to key corporate processes and strategies
 - High risk of valuable information being passed on to competitors

Deciding When to Use Contingent Workers

- Potential liability for withholding payroll taxes and payment of employee benefits
 - Contingent workers may be viewed as permanent employees, depending on how closely they are supervised and how the job is structured
 - Even if workers sign an agreement indicating that they are contractors, the deciding factor is the degree of control the company exercises over them

Potential Exploitation of non-local Workers

Salary abuse

- Unethical companies may try to get around the minimum salary requirement

Unsure future

- If a worker is not granted a permanent residency at the end of their tenure, he/she is forced to uproot his/her family and return home

Visa fraud

- Unethical employers may lie on their foreign worker applications and later use such workers as inexpensive labor to be used on an as-needed basis

Discussion Question

During a time when unemployment in the US exceeds 7 percent, some people feel that it is unethical to hire H-1B workers to work in the US. Prepare a brief summary of reasons why hiring H-1B workers might be considered unethical. Make a list of reasons why hiring H-1B workers should be considered an effective management strategy. What set of reasons is stronger? Why?

Outsourcing

- Long-term business arrangement in which a company contracts for services with an outside organization that has expertise in providing a specific function
 - To lower costs
 - To obtain strategic flexibility
 - To keep the firm's staff focused on core competencies

Offshore Outsourcing

- Services are provided by an organization whose employees are in a foreign country
- Factors to consider when selecting a destination
 - Financial attractiveness
 - People and skills availability
 - Overall business environment
- Benefits
 - Cost savings gained by employing foreign workers
 - Potential to speed up software development efforts, facilitated by teams working in different time zones

Limitations of Offshore Outsourcing

- Shrinkage of cost advantage
- Firms incur high costs by way of resources spent to:
 - Select an offshore vendor
 - Develop a good working relationship with the vendor
- Lay off of domestic staff
- Misunderstanding due to cultural and language differences
- Potential risk of loss of customer data
- Increases dependency on foreign workers to build the IT infrastructure of the future

Strategies for Successful Offshore Outsourcing

- Ensure that the outsourcing firm can provide:
 - Employees with the required expertise in the technologies involved in the project
 - A project manager who speaks the employer company's native language
 - A pool of staff large enough to meet the needs of the project
 - A state-of-the-art telecommunications setup
 - High-quality on-site managers and supervisors

Discussion Question

Your company has decided to offshore a \$50 million project to an experienced reputable firm in India.

This is the first offshore outsourcing project of significant size that your company has run. What steps should your company take to minimize the potential for problems?

Whistle-Blowing

- Effort to attract public attention to a negligent, illegal, unethical, abusive, or dangerous act by an organization

Dealing with a Whistle-Blowing Situation

- Assess the seriousness of the situation and begin documentation
- Attempt to address the situation internally and escalate the situation within the company
- Assess the implications of becoming a whistle-blower
- Use experienced resources to develop an action plan
- Execute the action plan
- Live with the consequences

Assignment

Edward Snowden- an employee of defense contractor Booz Allen Hamilton, working at the National Security Agency(NSA)-is responsible for what may turn out to be the most significant leak of classified information in the U.S history.

In June 2013, Snowden admitted to passing classified documents to reporters at *The Guardian* and *The Washington Post*- revealing details of NSA surveillance programs that collect and perform data mining on hundreds of millions of U.S. phone and internet traffic records to identify possible links to known terrorists. Shortly after leaking the documents, Snowden fled the country to avoid federal charges. Some people call Snowden a whistleblower for drawing attention to NSA programs they feel violate civil rights and the constitution.

Do further research on this incident and write a one page paper explaining your point of view on Snowden. (Submit on BB safe assign)

Discussion Scenario

Dr. Jeffrey Wigand is a whistle-blower who was fired from his position of vice president of research and development at Brown & Williamson Tobacco Cooperation in 1993. He was interviewed for a segment of the CBS show 60 Minutes in August 1995, but the network made a highly controversial decision not to air the interview as initially scheduled. The segment was pulled because CBS management was worried about the possibility of a multi-billion dollar lawsuit for tortuous interference; that is, interfering with Wigand's confidentiality agreement with Brown & Williamson. The interview finally aired on February 4, 1996, after the Wall Street Journal published a confidential November 1995 deposition that Wigand gave in Mississippi case against the tobacco industry, which repeated many of the charges he made to CBS. In the interview, Wigand said that Brown & Williamson had scrapped plans to make a safer cigarette and continued to use a flavoring in pipe tobacco that was known to cause cancer in laboratory animals. Wigand also charged that tobacco industry executives testified untruthfully before congress about tobacco product safety. Wigand suffered greatly for his actions; he lost his job, his home, his family, and his friends.

- Visit Wigand's Web Site (www.jeffreywigand.com) and answer the following questions
- What motivated Wigand to take an executive position at a tobacco company and then five years later to denounce the industry's efforts to minimize the health and safety issues of tobacco use?
- What whistle-blower actions did Dr. Wigand take?
- If you were in Dr. Wigand's position, what would you have done?

Green Computing

- To manufacture truly green products, companies must:
 - Produce products that require less electricity
 - Reduce the amount of hazardous materials used
 - Increase the amount of recyclable materials used
 - Help consumers dispose products in an environmentally safe manner at the end of the product's useful life

Electronic Product Environmental Assessment Tool (EPEAT)

- Enables purchasers to evaluate, compare, and select electronic products based on a total of 51 environmental criteria
- Products are ranked according to three tiers
 - Bronze - Meets all 23 required criteria
 - Silver - Meets all 23 of the required criteria plus at least 50 percent of the optional criteria
 - Gold - Meets all 23 required criteria plus at least 75 percent of the optional criteria

The European Union's Restriction of Hazardous Substances Directive

- Restricts the use of many hazardous materials in computer manufacturing
- Requires manufacturers to:
 - Use at least 65 percent reusable or recyclable components
 - Implement a plan to manage products at the end of their life cycle in an environmentally safe manner
 - Reduce or eliminate toxic material in their packaging

Electronic Industry Citizenship Coalition (EICC)

- Promotes a common code of conduct for the electronics and ICT industry
- Focuses on:
 - Worker safety and fairness
 - Environmental responsibility
 - Business efficiency
- Members apply the code across their worldwide supply chain and require their first-tier suppliers to acknowledge and implement it
 - Voluntary membership
- <http://www.eiccoalition.org/>

Summary

- Contingent workforce
 - Independent contractors
 - Temporary workers through employment agencies
 - On-call or day laborers
 - On-site workers provided by contract firms
- Outsourcing - Contract for services with outside organization, with an expertise in providing a specific function

Summary

- Whistle-blowing - Effort to attract public attention to negligent, illegal, unethical, abusive, or dangerous acts by company
 - Whistle-blowing process
 - Assess the seriousness of the situation
 - Begin documentation
 - Attempt to address the situation internally
 - Consider escalating the situation within the company
 - Assess the implications of becoming a whistle-blower
 - Use experienced resources to develop an action plan
 - Execute the action plan
 - Live with the consequences

Summary

- Green computers - Use less electricity, include fewer hazardous materials, and contain reusable or recyclable material
- EPEAT (Electronic Product Assessment Tool)
 - Purchasers can evaluate, compare, and select electronic products based on environmental criteria
- Electronic Industry Citizenship Coalition (EICC)
 - Established a code of conduct that defines performance, compliance, auditing, and reporting guidelines

COMPUTING AND VULNERABLE GROUPS

- How can the work of computer professionals harm vulnerable members?
- How is paying attention to vulnerable populations beneficial?
- Can the work of computer professionals harm vulnerable people in society?
- How can vulnerable members of society be protected?

Why Pay Special Attention to Vulnerable Groups?

- What types of assistance does your university provide to students from vulnerable groups?
- How about your work place?
- See Rule 1.07 of the *ACM/IEEE Software Engineering Code of Ethics and Professional Practice*

The Threat Analysis Method

- **Threat analysis:** (in computer security) an attempt to systematically identify the ways that a technology might be vulnerable to a malicious attack
 - Who might want to abuse this system?
 - Why might they want to abuse a system?
- **Vulnerabilities:** potential avenues of attack
- We can take similar approach to protect vulnerable population

People with Impaired, or Legally Limited, Decision-Making Abilities

- **Autonomy:** freedom for an entity to make decisions without outside constraints or interference

Case: Cell Phones and Family Locator Services

- **Locator:** anyone who has permission to see the locations of others using a family locator service, such as via cell phones
- **Locatee:** anyone whose cellular phone is being tracked
 - Most families make all adults locators and all children locatees
- Consider the following claim:
 - “The most moral way to use this technology is for all members of the family to be both locators and locatees. That is perfectly fair.”

Case: Cell Phones and Family Locator Services (continued)

- Do the benefits of using a family locator service to decrease the vulnerability of children outweigh the harms?
 - Should the phones of locatees display an icon or message, so that the users knows they are being tracked?
 - Should it be possible for locatees to turn off the location feature whenever they want?
 - Are the elderly more vulnerable, or less vulnerable, than college students?

People with Physical Limitations or Frailties

- **Accessibility:** the degree to which people with disabilities can use a given technology
- Examples of technologies that promote accessibility include:
 - Screen-readers: Software that reads the text on the screen audibly
 - Predictive typing: Software that can tell which word you are trying to type based on the first few letters
 - Subtitles: Software that displays the text of any audible dialog
 - High contrast displays: Software that changes the colors of the screen to make text easier to read
 - Haptic feedback: User interfaces that make cell phones vibrate
 - Text alternatives for images: On a Web page, provides a text description of an image so that a screen-reader can describe an image

Case: A Right to Gaming?

- Suppose a software company is designing a video game. The game designers are considering using yellow and green puzzle pieces and do not plan to provide any accommodations for color-blind users.
 - Is it morally permissible to create such software?

Case: Computer Donations and Recycling

- **E-waste:** discarded electronic devices
 - Can contain precious metals, as well as toxins
 - If people in developing countries understood the harm they were doing to themselves and their children by participating in e-waste recycling, do you think they would stop?

Case: Sex Selection in India

- Use a rule utilitarian analysis to explain why the Indian government might ban sex selection of babies. In particular, what are the consequences for a society if a serious imbalance arises between the number of boys and number of girls born each year?
- Indian officials could, if they wanted, ban ultrasound sonograms altogether. Should they?
 - Would this benefit female fetuses?
 - Whom would it harm?