What did we do?

- Business in 2006
  - The China Price
  - Globalization
  - Net-enabled (digital) firm
  - E-commerce and virtual organizations
  - Supply chain management
- Information Technology
  - Internet
  - Security
  - Ethics
  - Systems development and risks
- Strategy
  - Strategic information systems
  - Offshoring and outsourcing
Week 1: IT for Operations
Some Impacts of Information Technology

- Flattening organizations
- Separating work from location
- Increasing flexibility
- Redefining organizational boundaries
- Automation of operations (e.g., supply chain)
- Virtual teams and continuous communication
- Real time responses
- Productivity increases
- Factors that enable the digital firm

Information Technology as Enabler

Week 2: Strategic Information Systems

- Impact?
- Value chain/web models
- Competitive forces models
- Generic business strategies
- Disintermediation
- IT revolutionized business strategy
- Effects of e-commerce
Week 2: Strategic Alliances: Role of IT

- You do not have to do everything yourself
- Exploiting the comparative advantages of other firms
- Linking with these firms along the extended value chain

Week 3: Security – IT and Business Issues

- Risk Management
- Prevention, detection, reaction
- Types of attacks and reasons behind trends
- Why is security in cyberspace so difficult? Tradeoffs?
- Identity and brand theft
- Controls and defenses
- Social engineering threats
- Security management approaches

Management Concerns

- Security Management
  - Integrated systems (ERP, etc.)
  - Mobile computing
  - The 6 P’s (planning, policy, programs, protection, people, project management)

- Disaster Recovery / Business Continuity Planning
  - Risk abatement (involves risk assessment)
  - Survivability (asset dispersion; partial duplication)
Trend: Phenomenal Data Growth

- Data Deluge
  - Individual Data
    - Medical Records
    - Insurance
    - Educational
    - Personal Comm.
    - Credit History
    - Family & Kids
  - Mass Access Data
    - Movies, Videos
    - Books, Newspapers
    - Audio, Music
  - Corporate/Enterprise
    - Corporate Comm.
    - Accts/Legal/Admin
    - Inventory/Production
    - Customer/Sales
    - IP

Source: Ashu, Joshi 2005

Can anyone find more current data?

Week 4: Ethics and Privacy

- Ethical vs legal behaviors
- NORA
- IT effects on ethics and policies
- Data privacy and consumer options
- Privacy statements and formal policy
- Data collection strategies (cookies, click-throughs)
- Legal protections (copyrights, patents, trade secrets)
- Flavors of computer crime and prevention mechanisms

Ethics 101

- Appropriateness in given social and cultural context; applying moral rules, standards, principles
- What’s legal is not necessarily ethical; what’s ethical is not necessarily legal
- Different from “letter of law” and “spirit of law”
- Ethical dilemmas: usually choosing between two ethical “rights” (or two wrongs)

Variable based on social and cultural context (What does this mean for IT?)

Source: Scott Schneberger
Impact on Society

- Instant response syndrome
- Phone-rage detectors
- 24/7
- No separation of work and home
- Physical ailments

Week 5: System Development

- Systems life cycle – complete design, development, maintenance of information systems
- Conversion strategies
  - types; pros and cons of each
- Alternative methodologies
  - Prototyping, end user development, application packages, vendor, outsourcing
  - Pros and cons of each

Week 5: Systems Development

- Stakeholders in software engineering
- Why is software development difficult to estimate?
- Effects of errors during various stages of life cycle
- Feasibility studies and cost-benefit analysis of the life cycle
- Testing and evaluation
Project Management

- Project Risk
  - Project failures
  - Reasons
  - Lessons learned
- Project Leadership

Week 6: Outsourcing and Offshoring

- Outsourcing
  - When does it make good business sense to outsource?
- Offshoring
  - Why the controversy?
  - Virtual organization design
  - Sourcing decision factors
  - Attributes of offshore tasks that succeed
  - Secondary effects

Week 6: Attributes of Offshored Jobs

- No face-to-face servicing requirement
- High information content
- Work process is “telecommutable”
- High wage differential with similar occupation in destination region
- Relatively low set-up barriers
- Low social networking requirement

Cruise Ship – 3 mi.
Food For Thought:  
6 Things IT Managers Shouldn't Decide

1. How much should we spend on IT?  
   – Determine strategic role; allocate resources

2. Which business process should receive our IT dollars?  
   – Clear decisions about what IT initiatives will be funded

3. What IT capabilities need to be company wide?  
   – Which ones are central versus individual business unit?

4. How good do our IT services really need to be?  
   – Pay for enhance reliability on cost/benefit basis

5. What security and privacy risks will we accept?  
   – Security and privacy versus convenience

6. To whom do we assign the blame if an IT initiative fails?  
   – Assign business executive to be accountable for IT projects

Source: Ross and Weills, Harvard Business Review

Management Challenges

- Design competitive and efficient systems
- Understand systems requirements in global business environment
- Create information architecture that supports organization’s goals
- Assess business value of information systems
- Design systems people can use, understand, control in socially ethical and responsible manner

Source: Meta group, 2002

Some IT Principles

- “Maximize incremental revenue opportunities through leverage of digital technologies”
- “Information is managed as a corporate asset”
- “A goal of all technology decisions must be to reduce integration complexity”
- “Buy for competitive parity, build for competitive advantage”

Source: McKinsey, 2002
Does Carr Matter?

- Carr’s arguments?
  - Both sides of argument
  - Appreciate position statements in letters
- Tapscott
  - Companies with bad business models tend to fail; regardless of use of IT
  - Companies with good business models and use IT successfully to carry out these models tend to be very successful

Reference: Jessup and Valacich, 2006

A Few Final Notes

- Information technology
  - Adoption and absorption
  - Resource to be managed
- Ubiquitous
  - Dependency
- Business models impact