Outline

• Business Environment
• Electronic Commerce
• Management Challenges
Critical Information Systems in Today’s Business Practices

- **Enterprise systems**
  - Enterprise-wide information system to coordinate processes of the firm

- **Supply chain management systems**
  - Automate relationships with suppliers for planning, sourcing, manufacturing, delivery of products and services

- **Customer relationship management (CRM)**
  - Develop coherent, integrated view of all relationships with customers

- **Knowledge management systems**
  - Create, capture, store, disseminate firm expertise and knowledge

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**ELECTRONIC COMMERCE**

e-everything

- Internet links buyers, sellers
- Goods and services
  - advertised, bought, exchanged worldwide
- Impact
  - Increase ease and speed of business transactions
  - Level playing field; intense competition
  - Result
    - Business constantly adjusting to new technologies
    - Integration of newer, faster systems
    - Reduced inventories
    - Product customization

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**Value Web**

- [Diagram of Value Web]

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Information Technology to Enabled e-Commerce?

- Infrastructure
  - Telecommunications -- networks, protocols
  - World Wide Web -- browsers, standards
  - Databases -- management and integration of data
- Application development languages and tools
- Application Servers
- Wireless

Internet Technologies and Impacts

- Information technology infrastructure: Provides universal and easy-to-use set of technologies and technology standards that can be adopted by all organizations
- Direct communication between trading partners: Disintermediation removes intermediate layers, streamlines process
- Round-the-clock service: Web sites available to consumers 24 hours a day
- Extended distribution channels: Outlets created for attracting customers who otherwise would not patronize
- Reduced transaction costs: Costs of searching for buyers, sellers, etc. reduced
- Work moves with the sun: Work gets handed off from one geographic area to the next as time passes
- Outsourcing of systems development and operations: work can be done where skills are available and affordable
Internet Business Models

- Virtual storefront: Sells goods, services online (amazon.com)
- Information broker: Provides information on products, pricing, etc. (edmunds.com)
- Transaction broker: Buyers view rates, terms from various sources (e*trade.com, expedia.com)
- Online marketplace: Concentrates information from several providers
- Content provider: Creates revenue through providing client content for a fee, and advertising (CNN.com)
- Online service provider: Provides service, support for hardware, software products (monster.com, salesforce.com)
- Virtual community: Chat room, online meeting place
- Portal: Initial point of entry to Web, specialized content, services (yahoo.com, msn.com)
- Auction: Products, prices, change in response to demand. Used in online marketplaces (ebay.com)

MANAGEMENT CHALLENGES AND OPPORTUNITIES

- Different business models
- Business process change requirements
- Channel conflicts
- Legal issues
- Trust, security and privacy

BUSINESS ENVIRONMENT

1. Globalization
2. Industrial economics
3. Transformation of the enterprise
4. Digital firm
1. **Globalization**
   - Competition in world markets
   - Role of IT?

2. **Industrial Economics**
   - Productivity
   - New products and services
   - Shorter product life
   - Turbulent environment

3. **Transformation of the Enterprise**
   - Flattening organizations
   - Separating work from location
   - Increasing flexibility
   - Redefining organizational boundaries
4. Digital Firm

- Digitally-enabled relationships with customers, suppliers, employees
- Core business processes via digital networks
- Rapid sensing & responding to change

*Information systems link buyers & sellers to exchange information, products, services, payments*

Drivers to Digital (“Net-Enabled”) Firm

1. Digitization
2. Inexpensive telecommunications
3. Widespread diffusion of computers
4. Increasing pressures on costs and margins: globalization and commoditization
5. Changing organizational models
6. Rapidly shrinking cycle times
7. Intelligent products and services

Source: D. Straub, 2004

Management Challenges

- Design competitive and efficient systems
- Develop and deploy systems rapidly
- Understand systems requirements in global business environment
- Create information architecture that supports organization’s goals
  - (What firm can do in 5 years, depends upon what systems can do)
- Assess business value of information systems
- Design systems people can use, understand, control in socially ethical and responsible manner
Our Mission

• Understand and make some sense out of the technologies and their management.