## Lecture 2 of MIS

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### Objectives
1. Assess the impact of the Internet and Internet technology on business and government.
2. Define an information system from both a technical and business perspective and distinguish between computer literacy and information systems literacy.

### Chapter Outline
1.2 Perspectives on Information Systems
- What Is an Information System?
- A Business Perspective on Information Systems
- Dimensions of Information Systems

1.3 Contemporary Approaches to Information Systems
- Technical Approach
- Behavioral Approach
- Approach of This Text: Sociotechnical Systems

1.4 Learning to Use Information Systems: New Opportunities with Technology
- The Challenge of Information Systems: Key Management Issues
- Integrating Text with Technology: New Opportunities for Learning

### Key Terms
- Business functions, Information technology (IT)
- Business processes, Information technology (IT) infrastructure
- Communications technology, Complementary assets
- Digital firm, Operational managers, E-government
- Organizational and management capital, Information
- Electronic business (e-business), Input, Output
- Electronic commerce (e-commerce), Processing, Production or service workers
- Feedback, Senior managers, Formal systems, Sociotechnical view
- Storage technology, Information system, Information systems literacy

### Section 1.2: Perspectives on Information Systems
Section 1.2 is important for setting the stage for the rest of the text. Information systems have become essential for helping organizations deal with changes in global economies and the business enterprise. Information systems provide firms with communication and analytic tools for conducting trade and managing businesses on a global scale. Information systems are the foundation of new knowledge-based products and services in knowledge economies and help firms manage their knowledge assets. Information systems make it possible for businesses to adopt more flexible arrangements of employees and management that can coordinate with other organizations across great distances. Organizations are trying to become more competitive and efficient by transforming themselves into digital firms where nearly all core business processes and relationships with customers, suppliers, and employees are digitally enabled. The Internet is bringing about the convergence of technologies that is further widening the use of information systems in business and transforming industries and business models. Figure 1-7 (The Business Information
Value Chain) and the diagram at the beginning of the chapter can be used to illustrate this point.

(1) Data and information
Data: Streams of raw facts representing events such as business transactions
Information: Clusters of data that are meaningful and useful to human beings

(2) What Is an Information System?
Formal Systems: Fixed definitions of data and procedures for collecting, storing, processing, disseminating, and using these data; Can be computer-based or manual
Computer-based Information Systems: Use computer hardware and software to process and disseminate information

(3) The business information value chain

(4) Information systems are more than computers

Section 1.3: Contemporary Approaches to Information Systems.
After contrasting the technical and behavioral approaches, you should stress to your students that the sociotechnical approach does not ignore the technical, but considers it as a part of the organization. This is also a good place to reinforce the differences between information systems literacy and computer literacy.

(1) A Business Perspective on Information Systems
Major Business Functions:
- Sales and marketing
- Manufacturing
- Finance
- Accounting
- Human resources

(2) Management Levels
Senior managers: make long-range strategic decisions about products and services
Middle managers: carry out the programs and plans of senior management
Operational managers: monitor the firm’s daily activities

(3) Contemporary approaches to information systems

(4) Socio-technical Systems
Management Information Systems (MIS)
System performance optimized when technology and organization adjust to each other for a satisfactory fit

Section 1.4: New Opportunities with Technology.
There are five key management challenges to building and using information systems:
(1) obtaining business value from information systems; (2) providing appropriate complementary assets to use information technology effectively; (3) understanding the system requirements of a global business environment; (4) creating an information technology infrastructure that is flexible enough to support changing organizational goals; and (5) designing systems that people can control, understand, and use in a socially and ethically responsible manner.

(1) Flattening organizations

(2) A Business Perspective on Information Systems
Electronic Commerce (e-commerce): buying and selling goods and services electronically
Electronic Business: executing all the firm’s business processes with Internet technology
Intranet: private, secure business network based on Internet technology
Extranet: extension of intranet to authorized external users

(3) The Challenges of Information Systems: Key Management issues
Positive Impacts of Information Systems
- Faster calculations and paperwork
- Analysis of customer purchase patterns and preferences
- More efficient business services
- Medical advances
- Instant global distribution of information
### (4) The Challenges of Information Systems: Key Management issues

#### Negative Impacts of Information Systems
- Automation leading to job elimination
- Privacy concerns
- System outages and shutdowns
- Health problems, repetitive stress injury
- Illegal distribution of intellectual property

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