

c h a p t e r

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MANAGING THE DIGITAL FIRM

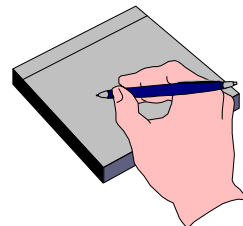
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LEARNING OBJECTIVES 1/2

- Analyze Role of Information Systems in Business Environment
- Define Information System, Computer Literacy, Information Systems Literacy
- Explain How Information Systems Transform Organization & Management

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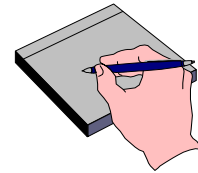
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LEARNING OBJECTIVES 2/2

- Assess Digital Firm, Electronic Commerce, Electronic Business, Internet Technology
- Identify Management Challenges to Building, Using Information Systems

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MANAGEMENT CHALLENGES 1/3

- Why Information Systems?
- Contemporary Approaches to Information Systems
- Role of Information Systems
- Using Information Systems

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MANAGEMENT CHALLENGES

2/3

1. Design Competitive & Efficient Systems
2. Understand System Requirements of Global Business Environment
3. Create Information Architecture that Supports Organization's Goals

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MANAGEMENT CHALLENGES

3/3

4. Determine Business Value of Information Systems
5. Design Systems People can Control, Understand & Use in a Socially, Ethically Responsible Manner

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THE CHANGING BUSINESS ENVIRONMENT

- GLOBALIZATION →
- INDUSTRIAL ECONOMIES →
- TRANSFORMATION OF THE ENTERPRISE →



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GLOBALIZATION

- MANAGEMENT & CONTROL
- COMPETITION IN WORLD MARKETS
- GLOBAL WORK GROUPS (Global Shift)
- GLOBAL DELIVERY SYSTEMS
(Suppliers & Carriers are parts of your extended enterprise)

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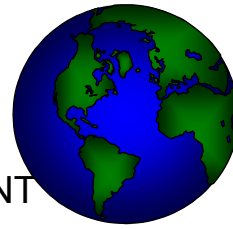


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INDUSTRIAL ECONOMIES

- KNOWLEDGE-BASED ECONOMIES
- PRODUCTIVITY
- NEW PRODUCTS & SERVICES
- KNOWLEDGE AS AN ASSET
- TIME-BASED COMPETITION
- SHORTER PRODUCT LIFE
- TURBULENT/FAST ENVIRONMENT
- LIMITED EMPLOYEE KNOWLEDGE BASE



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TRANSFORMATION OF ENTERPRISE

- FLATTENING (Horizontal Expansion)
- DECENTRALIZATION
- FLEXIBILITY
- LOCATION INDEPENDENCE
- LOW TRANSACTION COSTS
- EMPOWERMENT
- COLLABORATIVE WORK
(Location Irrelevant)



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EMERGENCE OF THE DIGITAL FIRM

- DIGITALLY-ENABLED RELATIONSHIPS WITH CUSTOMERS, SUPPLIERS, EMPLOYEES
- CORE BUSINESS PROCESSES VIA DIGITAL NETWORKS
- DIGITAL MANAGEMENT OF KEY ASSETS
- RAPID SENSING & RESPONDING TO CHANGE

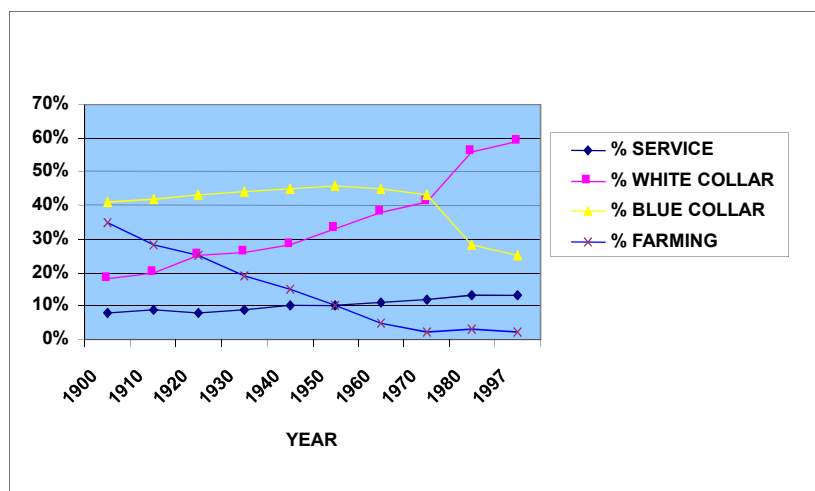


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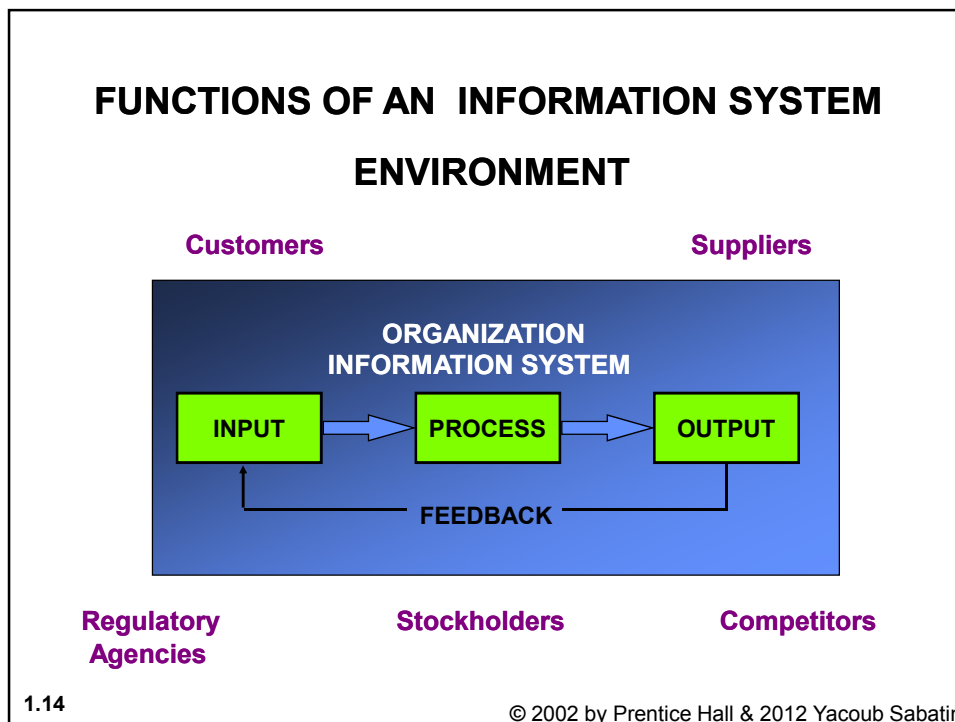
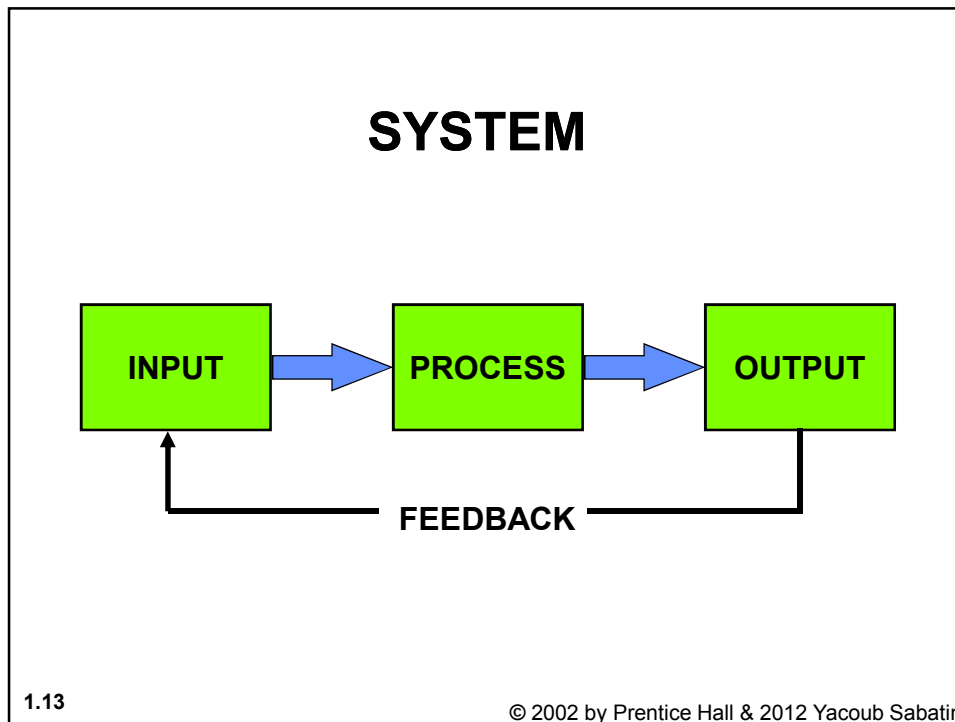
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LABOR FORCE COMPOSITION 1900-1997



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DATA & INFORMATION

- **DATA:** Streams of Raw Facts
Representing Events such as Business Transactions
- **INFORMATION:** Clusters of Facts
Meaningful & Useful to Human Beings
In Processes Such as Making Decisions



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COMPUTER-BASED INFORMATION SYSTEMS (CBIS)

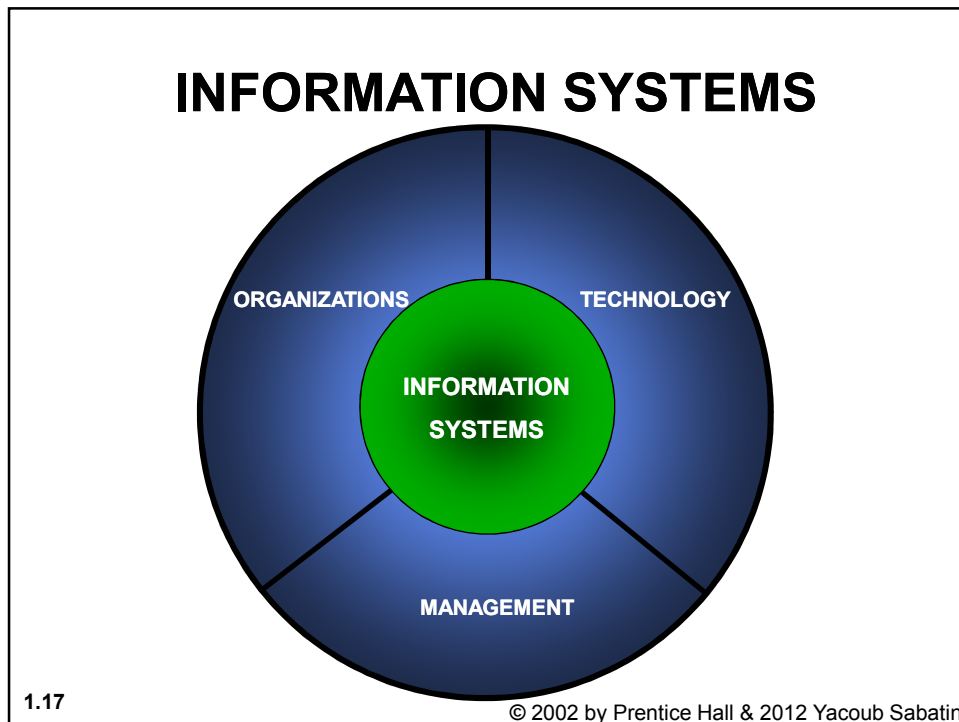
- **FORMAL SYSTEMS**
- **FIXED DEFINITIONS OF DATA,
PROCEDURES**
- **COLLECTING, STORING,
PROCESSING, DISSEMINATING (نشر),
USING DATA**

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ORGANIZATIONS 1/2

- **PEOPLE:** Managers, knowledge workers, data workers, production or service workers
- **STRUCTURE:** Organization chart, groups of specialists, products, geography

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ORGANIZATIONS 2/2

- **OPERATING PROCEDURES:** Standard Operating Procedures (SOP), rules for action
- **POLITICS:** Power to persuade, get things done
- **CULTURE:** Customs of behavior

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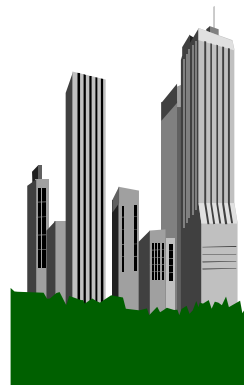
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MAJOR BUSINESS FUNCTIONS

- **SALES & MARKETING**
- **MANUFACTURING**
- **FINANCE**
- **ACCOUNTING**
- **HUMAN RESOURCES**

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COMPUTER TECHNOLOGY

- **HARDWARE**
- **SOFTWARE**
- **STORAGE**
- **COMMUNICATIONS**
- **NETWORKS**

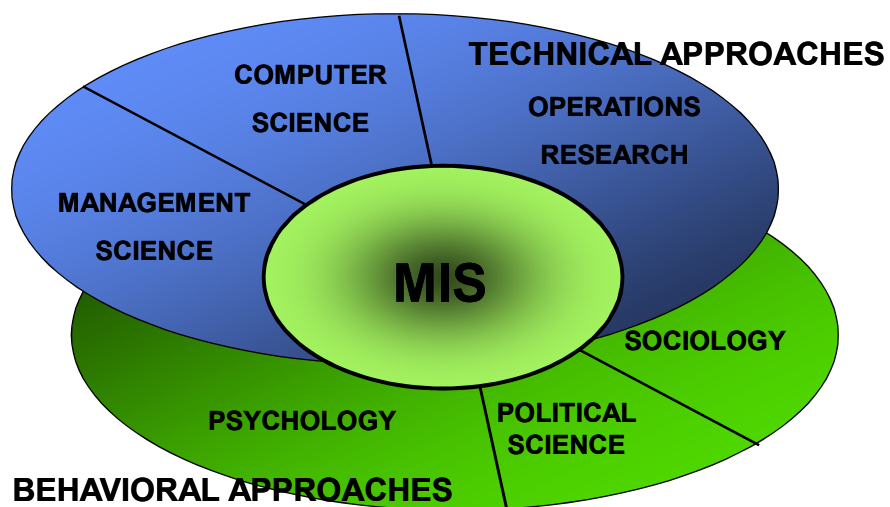
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APPROACHES TO INFO SYSTEMS



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SOCIOTECHNICAL PERSPECTIVE

OPTIMIZE SYSTEM PERFORMANCE:
TECHNOLOGY & ORGANIZATION
MUTUALLY ADJUST TO
ONE ANOTHER
UNTIL FIT IS SATISFACTORY

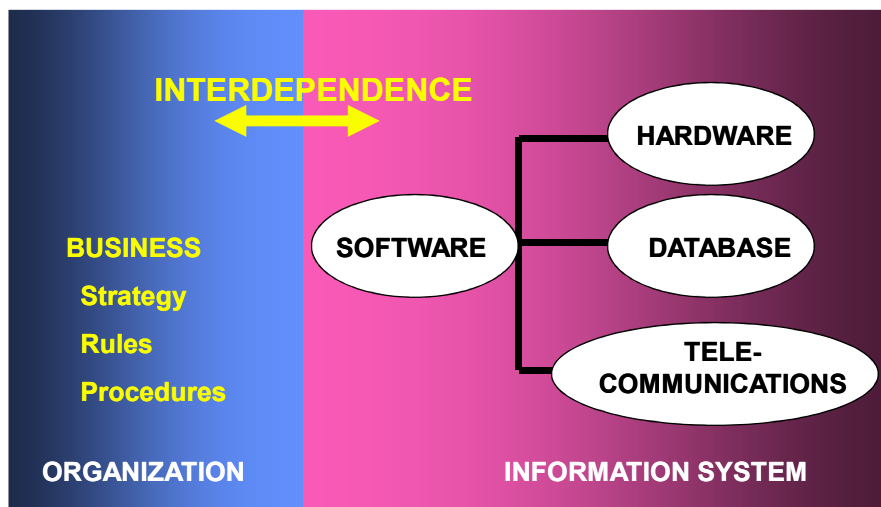


SOURCE: Liker, et al, 1987

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SYSTEM INTERDEPENDENCE



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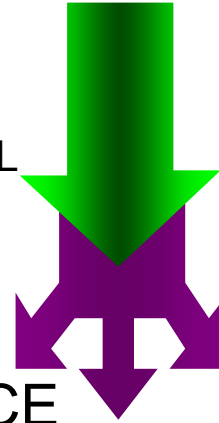
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SCOPE OF INFO SYSTEMS (Historical Overview)

- **1950s:** TECHNICAL CHANGES
- **60s-70s:** MANAGERIAL CONTROL
- **80s-90s:** INSTITUTIONAL
CORE ACTIVITIES

GROWING IMPORTANCE

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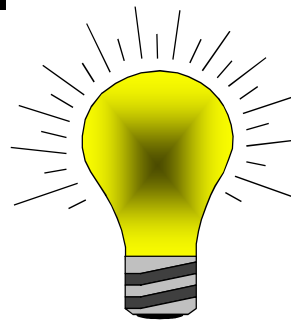
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WHAT YOU CAN DO ON THE INTERNET

- **COMMUNICATE & COLLABORATE**
- **ACCESS INFORMATION**
- **DISCUSS**
- **OBTAIN INFORMATION**
- **ENTERTAIN**
- **TRANSACT BUSINESS**

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NEW OPTIONS FOR ORGANIZATIONAL DESIGN

- FLATTENING ORGANIZATIONS
- SEPARATING WORK FROM LOCATION
- REORGANIZING WORK-FLOWS
- INCREASING FLEXIBILITY
- REDEFINING ORGANIZATIONAL BOUNDARIES

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THE DIGITAL FIRM

- **ELECTRONIC COMMERCE**
- **ELECTRONIC BUSINESS**
- **ELECTRONIC MARKET: Information system links buyers & sellers to exchange information, products, services, payments**

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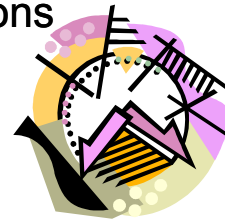
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ELECTRONIC COMMERCE

- Internet Links Buyers, Sellers
- Lowers Transaction Costs
- Goods & Services Advertised, Bought, Exchanged Worldwide
- Business-to-business Transactions Increasing

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ELECTRONIC BUSINESS

- **INTRANET:** Business builds private, secure network
- **E-MAIL, WEB DOCUMENTS, GROUP SOFTWARE:** Extends effective communication & control
- **EXTRANET:** Extension of Intranet to authorized external users

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