Global E-business and Collaboration

Part I

Organizations, Management, and Networked Enterprise

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Information Systems

Topic 2

Part I

Organizations, Management, and Networked Enterprise

Learning Objectives

1. What are business processes? How are they related to information systems?
2. How do systems serve the different management groups in a business, and how do systems that link the enterprise improve organizational performance?
3. Why are systems for collaboration and social business so important, and what technologies do they use?
4. What is the role of the information systems function in a business?
5. How will MIS help my career?

Topic 2: Global E-business and Collaboration

- Case 1: Vision X Grows With SAP Business One
- Case 2: CEMEX - Becoming a Social Business

- *Practical Case: Social Business: Full Speed Ahead or Proceed with Caution?*

Business Processes (1 of 2)

- **Business processes**
  - **Flows of material, information, knowledge**
  - **Sets of activities, steps**
  - **Logically related set of tasks that define how specific business tasks are performed**
  - **May be tied to functional area or be cross-functional**
- **Businesses: Can be seen as collection of business processes**
- **Business processes may be assets or liabilities**

Business Processes (2 of 2)

- **Examples of functional business processes**
  - **Manufacturing and production**
    - Assembling the product
  - **Sales and marketing**
    - Identifying customers
  - **Finance and accounting**
    - Creating financial statements
  - **Human resources**
    - Hiring employees

The Order Fulfillment Process

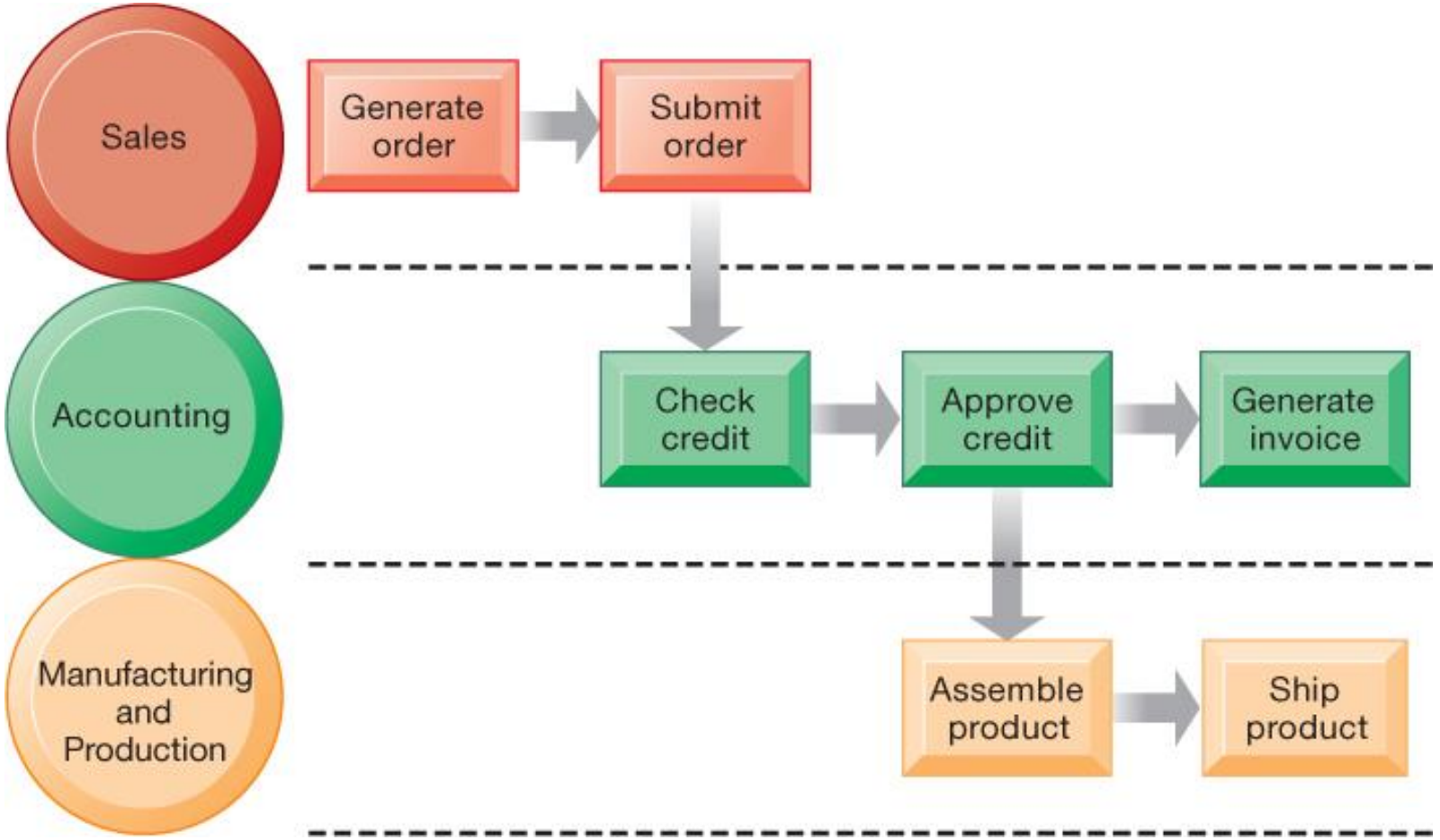

Figure 2.1

How Information Technology Improves Business Processes

- **Increasing efficiency of existing processes**
  - **Automating steps that were manual**
- **Enabling entirely new processes**
  - **Changing flow of information**
  - **Replacing sequential steps with parallel steps**
  - **Eliminating delays in decision making**
  - **Supporting new business models**

Systems for Different Management Groups (1 of 2)

- **Transaction processing systems**
  - **Serve operational managers and staff**
  - **Perform and record daily routine transactions necessary to conduct business**
    - Examples: sales order entry, payroll, shipping
  - **Allow managers to monitor status of operations and relations with external environment**
  - **Serve predefined, structured goals and decision making**

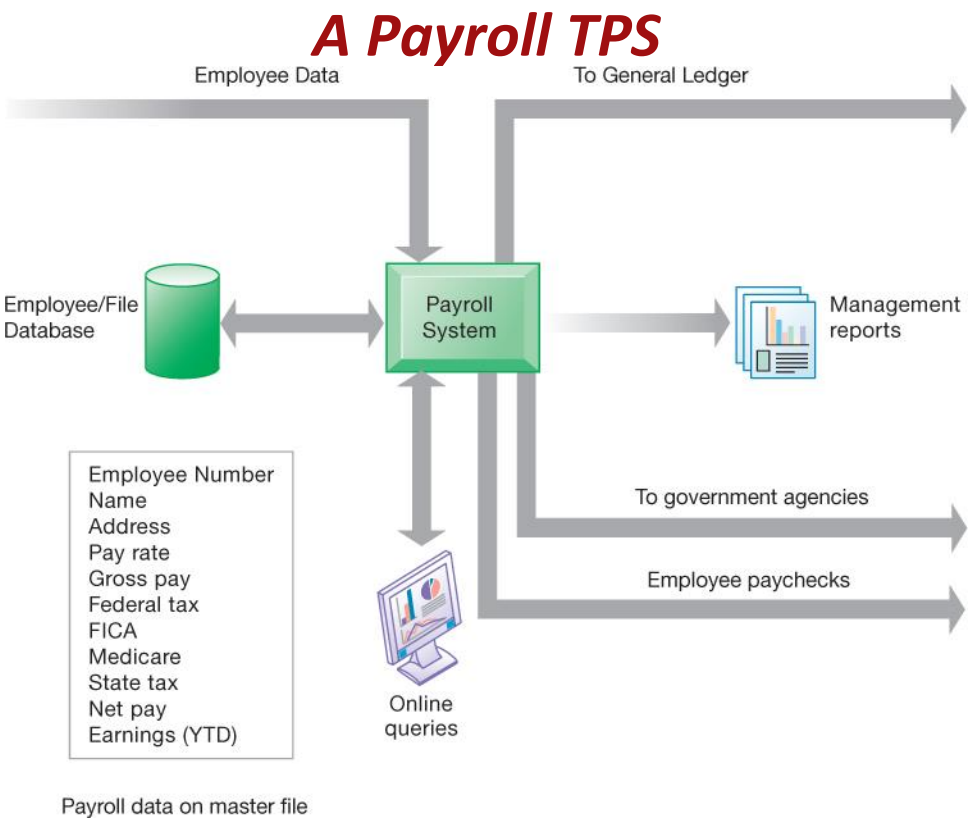

Figure 2.2

Systems for Different Management Groups (2 of 2)

- **Systems for business intelligence**
  - **Data and software tools for organizing and analyzing data**
  - **Used to help managers and users make improved decisions**
- **Management information systems**
- **Decision support systems**
- **Executive support systems**

Management Information Systems

- **Serve middle management**
- **Provide reports on firm's current performance, based on data from TPS**
- **Provide answers to routine questions with predefined procedure for answering them**
- **Typically have little analytic capability**

How Management Information Systems Obtain Their Data from the Organization's TPS

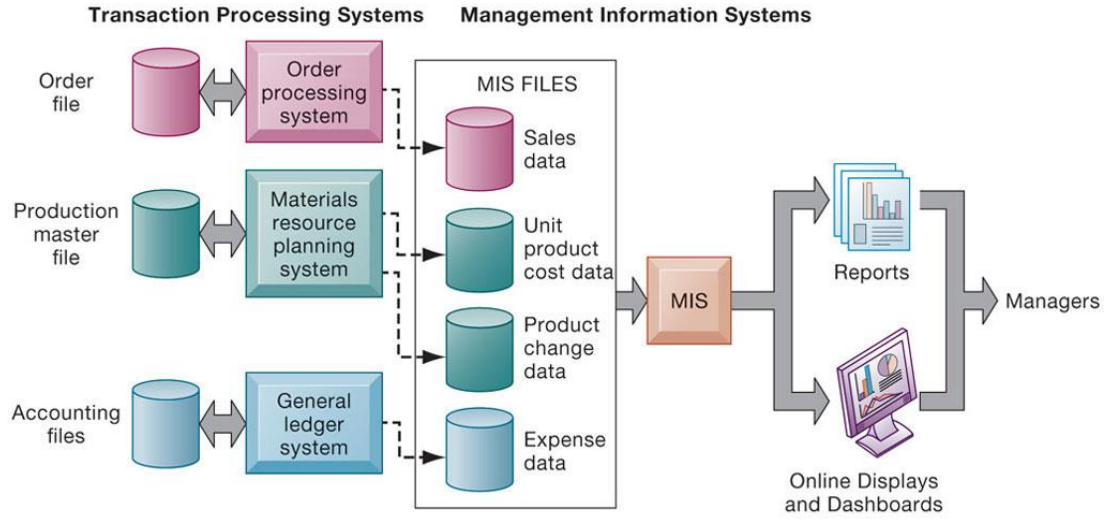

Figure 2.3

Sample MIS Report

Consolidated Consumer Products Corporation Sales by Product and Sales Region: 2017

PRODUCT CODE	PRODUCT DESCRIPTION	SALES REGION	ACTUAL SALES	PLANNED	ACTUAL versus PLANNED
4469	Carpet Cleaner	Northeast	4,066,700	4,800,000	0.85
		South	3,778,112	3,750,000	1.01
		Midwest	4,867,001	4,600,000	1.06
		West	4,003,440	4,400,000	0.91
	TOTAL		16,715,253	17,550,000	0.95
5674	Room Freshener	Northeast	3,676,700	3,900,000	0.94
		South	5,608,112	4,700,000	1.19
		Midwest	4,711,001	4,200,000	1.12
		West	4,563,440	4,900,000	0.93
	TOTAL		18,559,253	17,700,000	1.05

Figure 2.4

Decision support systems

- **Serve middle management**
- **Support nonroutine decision making**
  - **Example: What is the impact on production schedule if December sales doubled?**
- **May use external information as well TPS / MIS data**
- **Model driven DSS**
  - **Voyage-estimating systems**
- **Data driven DSS**
  - **Intrawest's marketing analysis systems**

Voyage-Estimating Decision-Support System

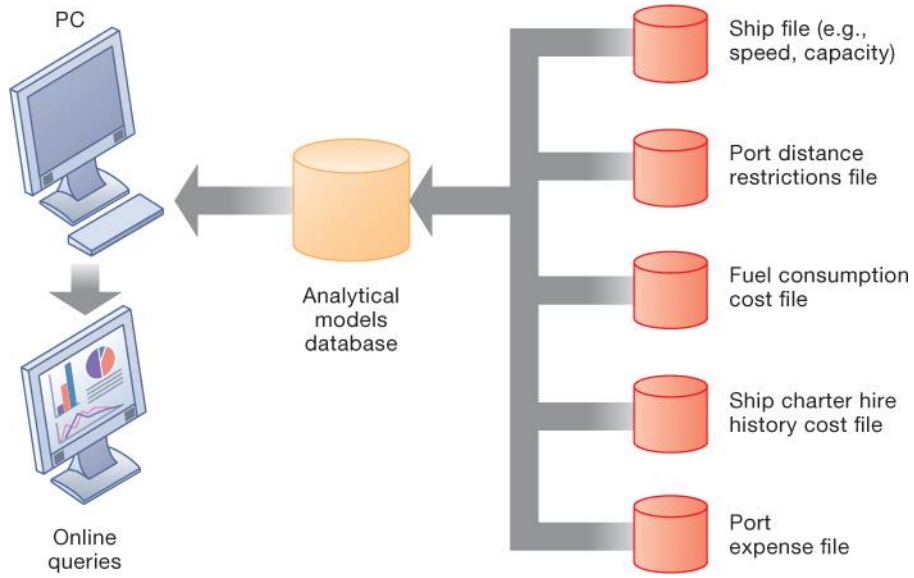

Figure 2.5

Executive Support Systems

- **Support senior management**
- **Address nonroutine decisions**
  - **Requiring judgment, evaluation, and insight**
- **Incorporate data about external events (e.g., new tax laws or competitors) as well as summarized information from internal MIS and DSS**
- **Example: Digital dashboard with real-time view of firm's financial performance**

Enterprise Applications

- Systems for linking the enterprise
- Span functional areas
- Execute business processes across the firm
- Include all levels of management
- Four major applications
  - Enterprise systems
  - Supply chain management systems
  - Customer relationship management systems
  - Knowledge management systems

Enterprise Application Architecture

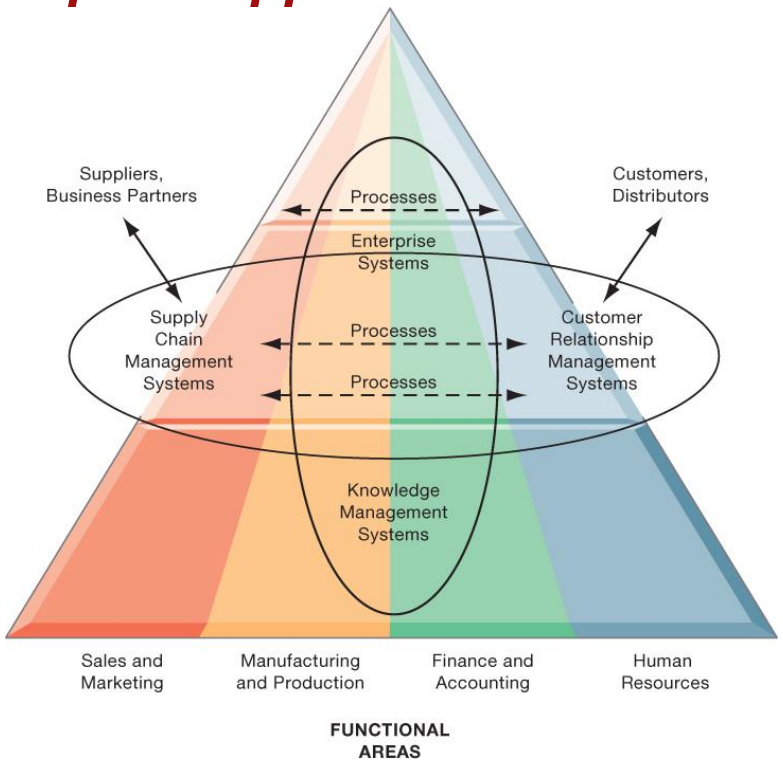

Figure 2.6

Enterprise Systems (1 of 2)

- Also called enterprise resource planning (ERP) systems
- Manage shared information about orders, production, inventory levels, and so on.
- Collect data from different firm functions and store data in single central data repository
  - Integrate data from key business processes into single system
  - Speed communication of information throughout firm.
- Resolve problems of fragmented data

Enterprise Systems (2 of 2)

- **Enable:**
  - **Managers to assemble overall view of operations.**
  - **Greater flexibility in responding to customer requests, greater accuracy in order fulfilment.**
  - **Coordination of daily activities**
  - **Efficient response to customer orders (production, inventory)**
  - **Decision making by managers about daily operations and longer-term planning**

Supply Chain Management (SCM) Systems

- **Manage relationships with suppliers, purchasing firms, distributors, and logistics companies.**
- **Share information about:**
  - **Orders, production, inventory levels, delivery of products and services**
- **Goal:**
  - **move correct amount of product from source to point of consumption as quickly as possible and at lowest cost**
- **Type of interorganizational system: Automating flow of information across organizational boundaries**

Customer Relationship Management (CRM) Systems

- Help manage relationship with customers.
- Coordinate business processes that deal with customers in sales, marketing, and customer service
- Provide information to coordinate all of the business processes that deal with customers
  - Sales
  - Marketing
  - Customer service
- Helps firms identify, attract, and retain most profitable customers

- **Goals:**
  - Optimize revenue
  - Improve customer satisfaction
  - Increase customer retention
  - Identify and retain most profitable customers
  - Increase sales

Knowledge Management Systems (KMS)

- **Support processes for capturing and applying knowledge and expertise**
  - **How to create, produce, and deliver products and services**
- **Collect relevant knowledge and make it available wherever needed in the enterprise to improve business processes and management decisions.**
- **Link to external sources of knowledge**

Intranets and Extranets

- **Technology platforms that increase integration and expedite the flow of information**
- **Intranets**
  - **Internal networks based on Internet standards**
  - **Often are private access area in company's Web site**
- **Extranets**
  - **Company websites accessible externally only to vendors and suppliers**
  - **Often used to coordinate supply chain**

E-business, E-commerce, and E-government

- **E-business**
  - Use of digital technology and Internet to drive major business processes
- **E-commerce**
  - Subset of e-business
  - Buying and selling goods and services through Internet
- **E-government**
  - Using Internet technology to deliver information and services to citizens, employees, and businesses

What Is Collaboration?

- **Collaboration**
  - **Short lived or long term**
  - **Informal or formal (teams)**
- **Growing importance of collaboration**
  - **Changing nature of work**
  - **Growth of professional work—"interaction jobs"**
  - **Changing organization of the firm**
  - **Changing scope of the firm**
  - **Emphasis on innovation**
  - **Changing culture of work**

What Is Social Business?

- **Social business**
  - **Use of social networking platforms (internal and external) to engage employees, customers, and suppliers**
- **Aims to deepen interactions and expedite information sharing**
- **"Conversations" to strengthen bonds with customers**
- **Requires information transparency**
  - **Driving the exchange of information without intervention from executives or others**
- **Seen as way to drive operational efficiency, spur innovation, accelerate decision making**

Business Benefits of Collaboration and Teamwork

- **Investment in collaboration technology can return large rewards, especially in sales and marketing, research and development**
- **Benefits**
  - **Productivity: Sharing knowledge and resolving problems**
  - **Quality: Faster resolution of quality issues**
  - **Innovation: More ideas for products and services**
  - **Customer service: Complaints handled more rapidly**
  - **Financial performance: Generated by improvements in factors above**

Requirements for Collaboration

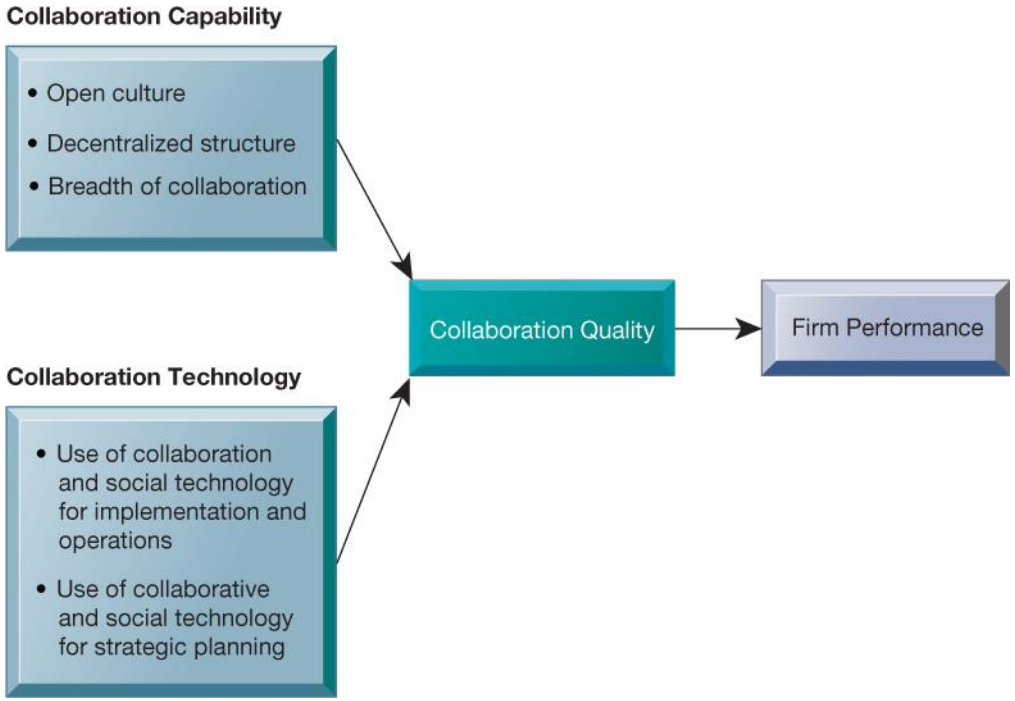

Figure 2.7

Building a Collaborative Culture and Business Processes

- "Command and control" organizations
  - No value placed on teamwork or lower-level participation in decisions

- Collaborative business culture
  - Senior managers rely on teams of employees
  - Policies, products, designs, processes, and systems rely on teams
  - The managers purpose is to build teams

Tools and Technologies for Collaboration and Social Business

- **E-mail and instant messaging (IM)**
- **Wikis**
- **Virtual worlds**
- **Collaboration and social business platforms**
  - **Virtual meeting systems (telepresence)**
  - **Cloud collaboration services (Google Drive, Google Docs, etc.)**
  - **Microsoft SharePoint and IBM Notes**
  - **Enterprise social networking tools**

Checklist for Managers: Evaluating and Selecting Collaboration and Social Software Tools

- **Time/space matrix**
- **Six steps in evaluating software tools**
  - **Identify your firm's collaboration challenges**
  - **Identify what kinds of solutions are available**
  - **Analyze available products' cost and benefits**
  - **Evaluate security risks**
  - **Consult users for implementation and training issues**
  - **Evaluate product vendors**

The Time/Space Collaboration and Social Tool Matrix

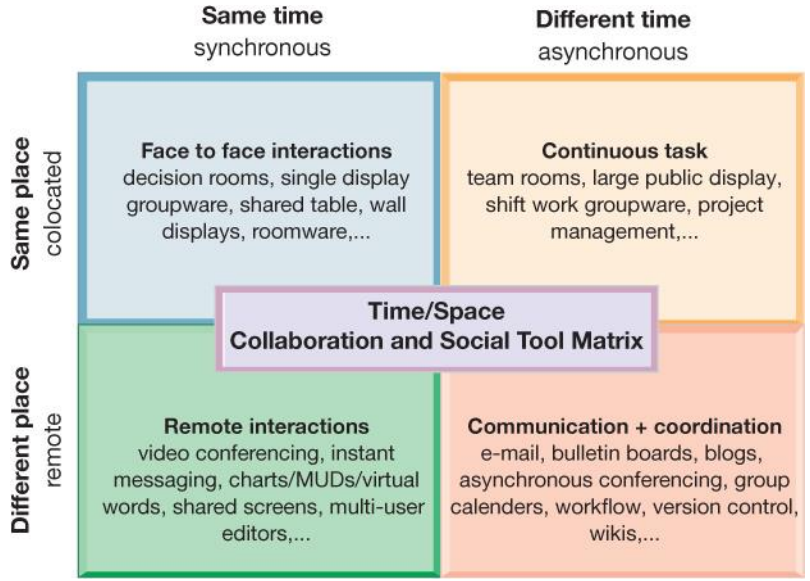

Figure 2.8

The Information Systems Department

- **Often headed by chief information officer (CIO)**
  - **Other senior positions include chief security officer (CSO), chief knowledge officer (CKO), chief privacy officer (CPO), chief data officer (CDO)**
- **Programmers**
- **Systems analysts**
- **Information systems managers**
- **End users**

Organizing the Information Systems Function

- **IT governance**
  - **Strategies and policies for using IT in the organization**
  - **Decision rights**
  - **Accountability**
  - **Organization of information systems function**
    - Centralized, decentralized, and so on

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Next Steps

- Answer the Moodle quiz
- Prepare for 3rd chapter