

# Chapter 1: Information Systems and People

# Learning objectives

1. Role of IS in organizations.
2. Three characteristics of valuable information.
3. Four components of IS.
4. MIS research areas.
5. Examples.
6. Ethical questions.

# IS in action

- American Idol
- Hurricane Sandy
- Walmart

# Organizations and IS

1. Operations management
2. Customer interactions
3. Decision making
4. Collaboration on teams
5. Strategic initiatives
6. Individual productivity

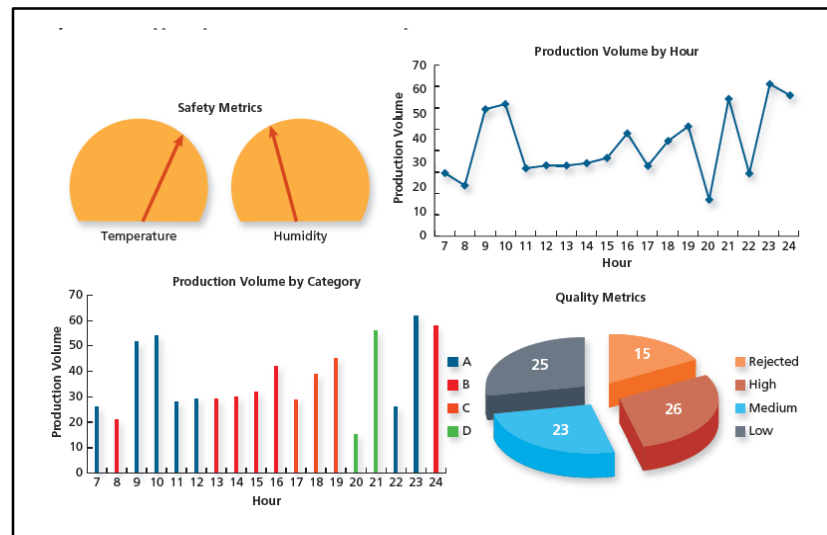
**FIGURE 1-1**

The major roles of information systems in organizations.



# 1. Managing operations

- Functions to deliver goods and services
- Compliance
- Industry-specific operations



**FIGURE 1-2**  
Manufacturing information system  
displaying production volumes and  
other metrics.

## 2. Customer interactions

- CRM systems build and maintain relationships.
- Web-based front offices and online self-service.

# 3. Making decisions

- Data-driven decision making
- Business intelligence

## 4. Collaborating on teams

- Social networks
- Online communities



## 5. Strategic objectives

- Competitive advantage
- Businesses and nonprofit organizations

## 6. Individual productivity

- Computer software
- Electronic devices

# Nature of information

- Data
- Information
- Knowledge

# Information value

- Timeliness
- Accuracy
- Completeness

# IS components

1. People
2. Technology
3. Processes
4. Data

# 1. People

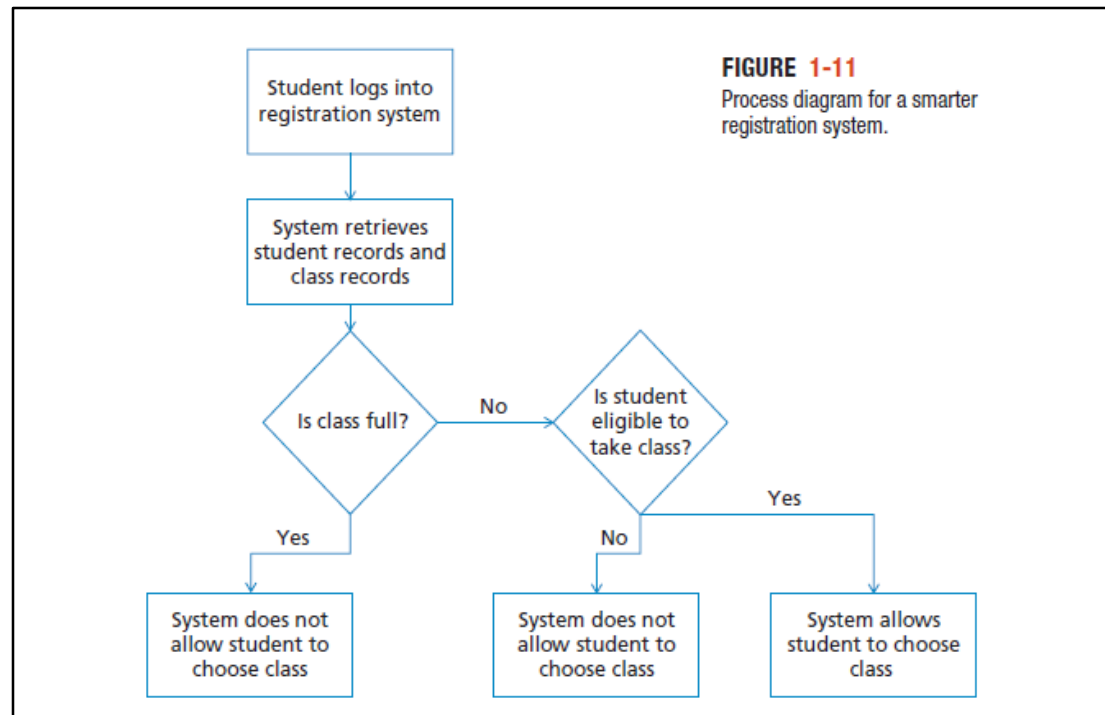
- Leaders
- Managers and staff
- Information technology team
- User-generated content

## 2. Technology

- Hardware
- Software
- Telecommunications

# 3. Processes

- Set of activities to achieve task
- Business process management





# 4. Data

- Raw ingredient for every information system
- Converted into digital format, integrated and shared across systems



CHAPTER 1 INFORMATION SYSTEMS AND PEOPLE

**FIGURE 1-12**  
Examples of data.

*Photos: Maxim Pavlov/Alamy, D. Hurst/Alamy, Sandra Baker/Alamy, Paul Paladin/Alamy, John Wilhelmsson/StockShot/Alamy, Roman Maerzinger/Picture Press/Alamy.*

# IS discipline

- Development
- Organizations
- Individuals
- Groups
- Markets

**FIGURE 1-14**  
Major research topics in MIS.

Topic	Sample Research Questions
Development of information systems	What are the best ways to develop new software? How should end-users be involved in the development process?
IT in organizations	How should managers introduce change when new systems are implemented? What kinds of IT policies about "acceptable use" work best in different organizations?
IT and individuals	How should IT develop systems for the disabled? What kinds of interfaces are easiest for people to use?
IT and collaboration in groups	Why do virtual teams succeed or fail? How can managers use social networking to promote innovation?
IT and markets	How does the Internet affect the real estate business? How should businesses promote online sales?

# IS in business

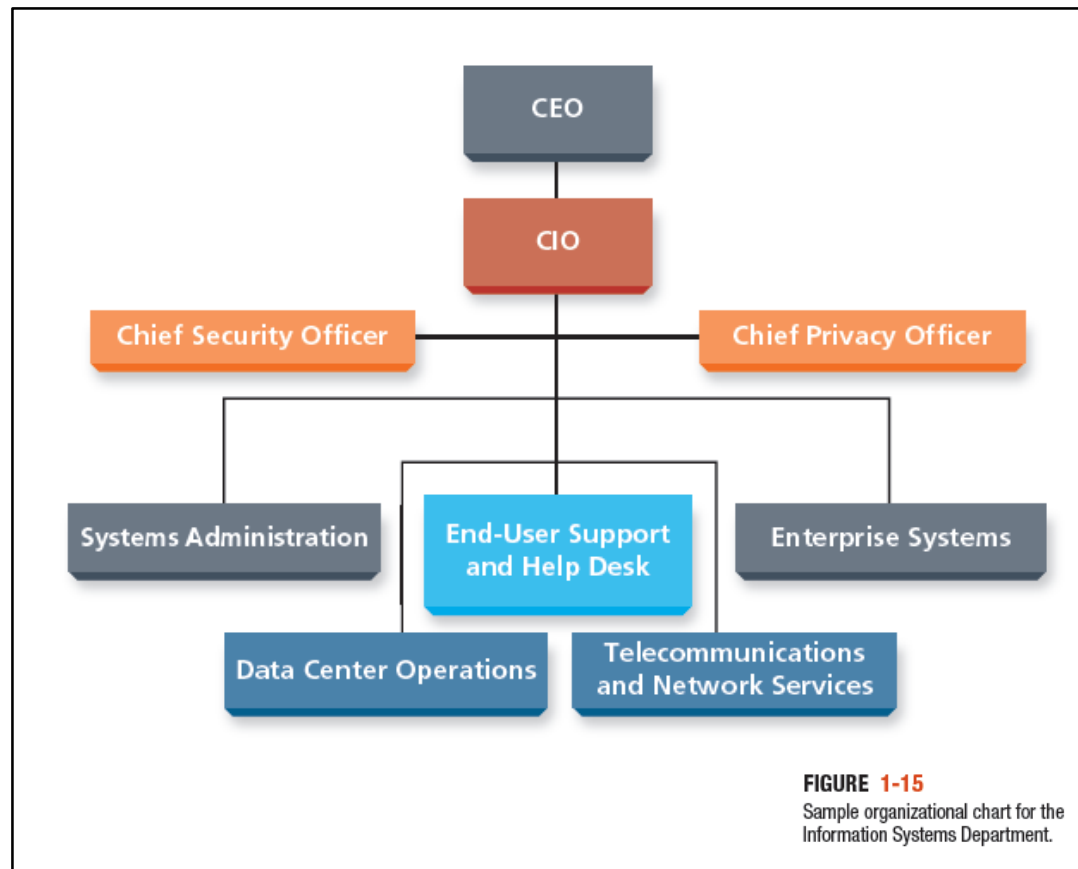
- Marketing
- Finance
- HR
- Sales
- Manufacturing
- Entrepreneurship

# IS in nonprofits and government

- Fundraising
- Updates
- Micro-volunteering

# IT department

- Chief Information Officer (CIO)



# Collaborating on IS

**FIGURE 1-18**

Tips for collaborating on information systems.

## **For the CIO and IT Staff:**

- ▶ *Focus on business goals.* The objective of a project is not to “upgrade all the servers,” but to improve productivity, attract more customers, reduce costs, earn revenue, increase customer loyalty, reduce carbon emissions, etc.
- ▶ *Avoid jargon.* Learn to speak the language your colleagues in other departments understand, and reserve the technical jargon for internal IT communications.
- ▶ *Communicate the value of IT.* Although many focus on how much IT costs, the savings or revenue IT generates through improved productivity or added sales are captured in other departments.
- ▶ *Emphasize return on investment.* Evaluate projects in terms of their ultimate payoff, the same way business managers judge other kinds of initiatives.
- ▶ *Be proactive.* Propose and support innovative projects with clear business goals, rather than just react to problems and proposals as they arise. Ensure that people like Nikia know how to contact IT to discuss their innovative ideas.
- ▶ *Embrace customer service.* Strive for the highest level of customer satisfaction for your internal customers, not just the ones who buy your company’s products and services.
- ▶ *Become a hybrid.* The most successful IT professionals have solid technology skills, but are also very well grounded in the business so they can easily communicate.

## **For People in Other Areas:**

- ▶ *Describe your end goal, not the means to get there.* The more your IT colleagues understand what you want to accomplish, the better equipped they will be to help.
- ▶ *Learn how to contact IT for different purposes.* If you are not sure, ask.
- ▶ *Be familiar with how information systems are already supporting your organization.* Explore the company’s intranet and review announcements about new initiatives.
- ▶ *Network.* Keeping in touch with your colleagues in and out of IT builds trust and creates networks of people who can share knowledge.
- ▶ *Do your homework.* Especially after taking this course, you will be prepared to research your ideas and the information system solutions others have attempted, so you are more familiar with what is possible.
- ▶ *Be an active partner.* As your project develops, keep in close touch with IT to provide timely assistance and feedback at every step. If you do not, the result may be quite different from what you expected.

# Productivity

- Microsoft productivity survey
- Role of IT

	Not at All True for Me				Very True for Me			
1. I empty my email inbox every day.	1	2	3	4	5	6	7	
2. I keep a to-do list, and always keep it up to date.	1	2	3	4	5	6	7	
3. I use email filters to sort messages by how important they are.	1	2	3	4	5	6	7	
4. I stay logged into my social network most of the day so I am alerted when updates occur or messages appear.	1	2	3	4	5	6	7	
5. I rarely print anything out.	1	2	3	4	5	6	7	
6. I send and receive text messages very frequently, though most are unimportant.	1	2	3	4	5	6	7	
7. I focus on the most important projects and can ignore distractions.	1	2	3	4	5	6	7	
8. I have a clear vision of what I want to achieve and make priorities.	1	2	3	4	5	6	7	
9. I keep my calendar online rather than on paper, and I keep it up to date.	1	2	3	4	5	6	7	
10. My electronic files are very well organized.	1	2	3	4	5	6	7	

**FIGURE 1-19**

How do you use technology to improve your productivity? Take this short quiz.

# Ethical issues

- Privacy
- Crisis management
- Reputation



# Summary

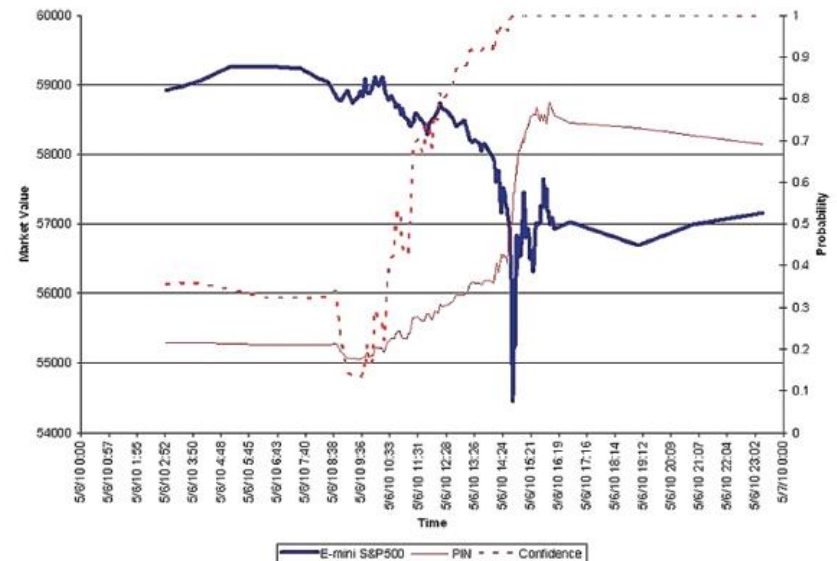
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6. Promises, perils and ethics

# Nasdaq OMX case

- Electronic trading exchange
- Competes on speed
- Risks

**FIGURE 1-23**

Flash crash on May 6, 2010.



Source: [http://en.wikipedia.org/wiki/File:Chart\\_dow\\_dip2.top.gif](http://en.wikipedia.org/wiki/File:Chart_dow_dip2.top.gif)

# Twitter case

**FIGURE 1-24**

Reformatting tweets to improve disaster response.

**Original Tweet:**

Sherline Birotte aka Memen. Last seen at 19 Ruelle Riviere  
College University of Porter a3 story schol building

**Restructured Tweet:**

#haiti #ruok Sherline Birotte aka Memen. Last seen #loc  
19 Ruelle Riviere College University of Porter #info a 3 story  
schol building

- Emergency response
- Use and enhancements
- Challenges