

FIFTEENTH
EDITION

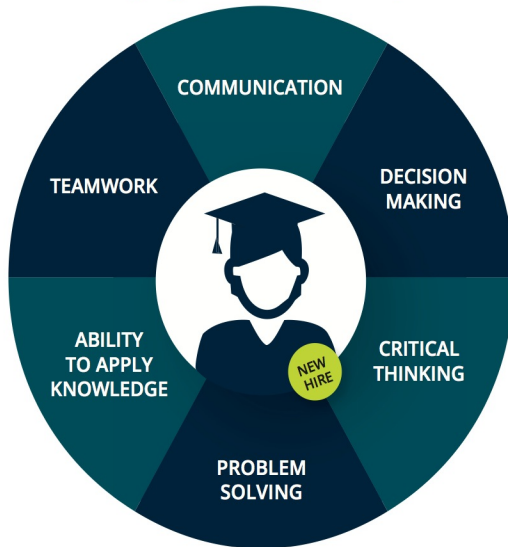
MANAGEMENT INFORMATION SYSTEMS

MANAGING THE DIGITAL FIRM

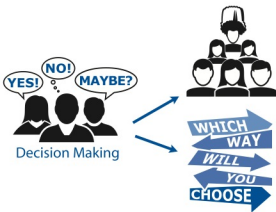
Kenneth C. Laudon
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MIS: Engage, Apply, Empower



- **Office 2016 Grader Projects**—Students complete projects in Excel and Access to demonstrate **problem solving, critical thinking, and data analysis skills**. Projects are automatically graded and include feedback. Integrity tokens in each project prevent and detect cheating.

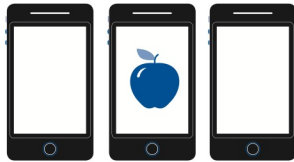


- **Branching, Decision-Making Simulations**—students take on the role of manager as they make a series of decisions based on a realistic business challenge, fostering **decision making and problem solving** skills. The simulations change and branch based on their decisions, creating various scenario paths. At the end of each simulation, students receive a grade and a detailed report of the choices they made with the associated consequences included.

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- **Dynamic Study Modules**—help students learn the language of MIS by continuously assessing their activity and performance in real time by adapting to the student's **knowledge** and confidence on each concept. These are available as graded assignments prior to class, and accessible on smartphones, tablets, and computers.



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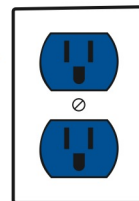
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MANAGING THE DIGITAL FIRM

FIFTEENTH EDITION

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The Laudons have two daughters, Erica and Elisabeth, to whom this book is dedicated.

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15-3 What are the challenges posed by global information systems and management solutions for these challenges? 572
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 Computing Platforms and Systems Integration 577 • Connectivity 577

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 Software Localization 580

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Collaboration and Teamwork Project 586

Case Study: Crocs Clammers to Global Efficiency 586

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Business Cases And Interactive Sessions

Here are some of the business firms you will find described in the cases and Interactive Sessions of this book:

Chapter 1: Information Systems in Global Business Today

The Grocery Store of the Future: Look at Kroger
The Mobile Pocket Office
UPS Competes Globally with Information Technology
Are Farms Becoming Digital Firms?

Chapter 2: Global E-Business and Collaboration

Enterprise Social Networking Helps ABB Innovate and Grow
New Systems Help Plan International Manage Its Human Resources
Cisco IX5000: What State-of-the-Art Telepresence Can Do for Collaboration
Social Business: Full Speed Ahead or Proceed with Caution?

Chapter 3: Information Systems, Organizations, and Strategy

Verizon or AT&T: Which Company Has the Best Digital Strategy?
Can Technology Replace Managers?
Smart Products, Smart Companies
Can Technology Save Sears?

Chapter 4: Ethical and Social Issues in Information Systems

The Dark Side of Big Data
Volkswagen Pollutes Its Reputation with Software to Cheat Emissions Testing
Are We Relying Too Much on Computers to Think for Us?
Facebook Privacy: What Privacy?

Chapter 5: IT Infrastructure and Emerging Technologies

EasyJet Flies High with Cloud Computing
Wearable Computers Change How We Work
Computing Takes Off in the Cloud
BYOD: Business Opportunity or Big Headache?

Chapter 6: Foundations of Business Intelligence: Databases and Information Management

Better Data Management Helps the U.S. Postal Service Rebound
New York City Moves to Data-Driven Crime Fighting
Keurig Green Mountain Embraces Data Governance
Can We Trust Big Data?

Chapter 7: Telecommunications, the Internet and Wireless Technology

RFID Helps Macy's Pursue an Omnichannel Strategy
The Battle over Net Neutrality
Monitoring Employees on Networks: Unethical or Good Business?
Google, Apple, and Facebook Battle for Your Internet Experience

Chapter 8: Securing Information Systems

Hackers Attack the SWIFT Global Banking Network
The Flash Crash: A New Culprit
BYOD: A Security Nightmare?
U.S. Office of Personnel Management Data Breach: No Routine Hack

Chapter 9: Achieving Operational Excellence and Customer Intimacy: Enterprise Applications

Skullcandy Rocks with ERP in the Cloud
Logistics and Transportation Management at LG Electronics
Customer Relationship Management Helps Celcom Become Number One
How Supply Chain Management Problems Killed Target Canada

Chapter 10: E-commerce: Digital Markets, Digital Goods

Uber Digitally Disrupts the Taxi Industry
Getting Social with Customers
Can Instacart Deliver?
Walmart and Amazon Duke It Out for E-commerce Supremacy

Chapter 11: Managing Knowledge

Cadillac Creates Virtual Dealerships
ECM in the Cloud Empowers New Zealand Department of Conservation
Will Robots Replace People in Manufacturing?
Does IBM's Watson Have a Future in Business?

Chapter 12: Enhancing Decision Making

Can Big Data Analytics Help People Find Love?
The Tension Between Technology and Human Decision Makers
Data Drive Starbucks Location Decisions
GE Bets on the Internet of Things and Big Data Analytics

Chapter 13: Building Information Systems

Angostura Builds a Mobile Sales System
Fujitsu Selects a SaaS Solution to Simplify the Sales Process
Developing Mobile Apps: What's Different
ConAgra's Recipe for a Better Human Resources System

Chapter 14: Managing Projects

Intuit Counts on Project Management
Can the National Health Service Go Paperless?
Snohomish County Public Utility District Implements a New Human Resources System
The Philly311 Project: The City of Brotherly Love Turns Problems into Opportunities

Chapter 15: Managing Global Systems

Dunlop Aircraft Tyres Takes Off Worldwide with Customer Relationship Management
Indian E-commerce: Obstacles to Opportunity
Steelcase Designs Goes for Global Talent Management
Crocs Clammers to Global Efficiency

We wrote this book for business school students who wanted an in-depth look at how today's business firms use information technologies and systems to achieve corporate objectives. Information systems are one of the major tools available to business managers for achieving operational excellence, developing new products and services, improving decision making, and achieving competitive advantage. Students will find here the most up-to-date and comprehensive overview of information systems used by business firms today. After reading this book, we expect students will be able to participate in, and even lead, management discussions of information systems for their firms.

When interviewing potential employees, business firms often look for new hires who know how to use information systems and technologies for achieving bottom-line business results. Regardless of whether you are an accounting, finance, management, operations management, marketing, or information systems major, the knowledge and information you find in this book will be valuable throughout your business career.

What's New in This Edition

Currency

The 15th edition features all new opening, closing, and Interactive Session cases. The text, figures, tables, and cases have been updated through September 2016 with the latest sources from industry and MIS research.

New Features

- **New Conceptual Videos** collection includes 45 conceptual videos of 3 to 5 minutes in length. Ken Laudon walks students through three of the most important concepts in each chapter using a contemporary animation platform. Available only in the MyMISLab digital edition
- **New Video Cases** collection: 36 video cases (two or more per chapter) and 10 additional instructional videos covering key concepts and experiences in the MIS world. Video Cases are listed at the beginning of each chapter.
- **Learning Tracks:** 47 Learning Tracks in MyMISLab for additional coverage of selected topics.

New Topics

- **Big Data and the Internet of Things:** In-depth coverage of big data, big data analytics, and the Internet of Things (IoT) in Chapters 1, 6, 7, and 12. Includes big data analytics, analyzing IoT data streams, Hadoop, in-memory computing, non-relational databases, and analytic platforms.

- **Cloud Computing:** Updated and expanded coverage of cloud computing in Chapter 5 (IT infrastructure) with more detail on types of cloud services, private and public clouds, hybrid clouds, managing cloud services, and a new Interactive Session on using cloud services. Cloud computing also covered in Chapter 6 (databases in the cloud), Chapter 8 (cloud security), Chapter 9 (cloud-based CRM and ERP), Chapter 10 (e-commerce), and Chapter 13 (cloud-based systems development).
- **Social, Mobile, Local:** New e-commerce content in Chapter 10 describing how social tools, mobile technology, and location-based services are transforming marketing and advertising.
- **Social Business:** Expanded coverage of social business, introduced in Chapter 2 and discussed in throughout the text. Detailed discussions of enterprise (internal corporate) social networking as well as social networking in e-commerce.
- BYOD and mobile device management
- Smart products
- DevOps
- Zero-day vulnerabilities
- Machine learning
- Chatbots
- Near field communication (NFC)
- Native advertising
- Windows 10
- Microsoft Office 365
- Zero-day vulnerabilities
- Platforms
- Software-defined storage (SDS)

The 15th Edition: The Comprehensive Solution for the MIS Curriculum

Since its inception, this text has helped to define the MIS course around the globe. This edition continues to be authoritative but is also more customizable, flexible, and geared to meeting the needs of different colleges, universities, and individual instructors. Many of its learning tools are now available in digital form. This book is now part of a complete learning package that includes the core text, Video Case Package, and Learning Tracks.

The core text consists of 15 chapters with hands-on projects covering the most essential topics in MIS. An important part of the core text is the Video Case Study and Instructional Video Package: 36 video case studies (two to three per chapter) plus 10 instructional videos that illustrate business uses of information systems, explain new technologies, and explore concepts. Videos are keyed to the topics of each chapter.

In addition, for students and instructors who want to go deeper into selected topics, there are 47 Learning Tracks in MyMISLab that cover a variety of MIS topics in greater depth.

The CORE Text

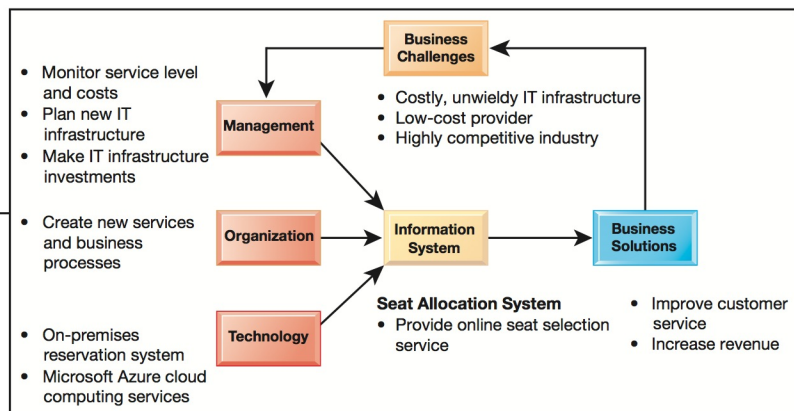
The core text provides an overview of fundamental MIS concepts using an integrated framework for describing and analyzing information systems. This framework shows information systems composed of management, organization, and technology elements and is reinforced in student projects and case studies.

Chapter Organization

Each chapter contains the following elements:

- A Chapter Outline based on Learning Objectives
- Lists of all the Case Studies and Video Cases for each chapter
- A chapter-opening case describing a real-world organization to establish the theme and importance of the chapter
- A diagram analyzing the opening case in terms of the management, organization, and technology model used throughout the text
- Two Interactive Sessions with Case Study Questions
- A Review Summary keyed to the Student Learning Objectives
- A list of Key Terms that students can use to review concepts
- Review questions for students to test their comprehension of chapter material
- Discussion questions raised by the broader themes of the chapter
- A series of Hands-on MIS Projects consisting of two Management Decision Problems, a hands-on application software project, and a project to develop Internet skills
- A Collaboration and Teamwork Project to develop teamwork and presentation skills with options for using open source collaboration tools
- A chapter-ending case study for students to apply chapter concepts
- Two assisted-graded writing questions with prebuilt grading rubrics
- Chapter references

A diagram accompanying each chapter-opening case graphically illustrates how management, organization, and technology elements work together to create an information system solution to the business challenges discussed in the case.



Key Features

We have enhanced the text to make it more interactive, leading edge, and appealing to both students and instructors. The features and learning tools are described in the following sections.

Business-Driven with Real-World Business Cases and Examples

The text helps students see the direct connection between information systems and business performance. It describes the main business objectives driving the use of information systems and technologies in corporations all over the world: operational excellence, new products and services, customer and supplier intimacy, improved decision making, competitive advantage, and survival. In-text examples and case studies show students how specific companies use information systems to achieve these objectives.

We use only current (2016) examples from business and public organizations throughout the text to illustrate the important concepts in each chapter. All the case studies describe companies or organizations that are familiar to students, such as Nike, the San Francisco Giants, Facebook, Walmart, Google, Macy's, and GE.

Interactivity

There's no better way to learn about MIS than by doing MIS! We provide different kinds of hands-on projects where students can work with real-world business scenarios and data and learn firsthand what MIS is all about. These projects heighten student involvement in this exciting subject.

- **Online Video Case Package.** Students can watch short videos online, either in-class or at home or work, and then apply the concepts of the book to the analysis of the video. Every chapter contains at least two business video cases that explain how business firms and managers are using information systems and explore concepts discussed in the chapter. Each video case consists of one or more videos about a real-world company, a background text case, and case study questions. These video cases enhance students' understanding of MIS topics and the relevance of MIS to the business world. In addition, there are 10 Instructional Videos that describe developments and concepts in MIS keyed to respective chapters.
- **Online Conceptual Videos [the digital edition only].** Forty-five video animations where the authors walk students through three concepts from each chapter.
- **Interactive Sessions.** Two short cases in each chapter have been redesigned as Interactive Sessions to be used in the classroom (or on Internet discussion boards) to stimulate student interest and active learning. Each case concludes with case study questions. The case study questions provide topics for class discussion, Internet discussion, or written assignments.
- **Hands-On MIS Projects.** Every chapter concludes with a Hands-On MIS Projects section containing three types of projects: two Management Decision Problems; a hands-on application software exercise using Microsoft Excel, Access, or web page and blog creation tools; and a project that develops Internet business skills. A Dirt Bikes USA running case in MyMISLab provides additional hands-on projects for each chapter.

INTERACTIVE SESSION: TECHNOLOGY

Getting Social with Customers

Businesses of all sizes are finding Facebook, Twitter, and other social media to be powerful tools for engaging customers, amplifying product messages, discovering trends and influencers, building brand awareness, and taking action on customer requests and recommendations. Half of all Twitter users recommend products in their tweets.

About 1.6 billion people use Facebook, and more than 30 million businesses have active brand pages, enabling users to interact with the brand through blogs, comment pages, contests, and offerings on the brand page. The “like” button gives users a chance to share with their social network their feelings about content and other objects they are viewing and websites they are visiting. With like buttons on millions of websites, Facebook can track user behavior on other sites and then sell this information to marketers. Facebook also sells display ads to firms that show up in the right column of users’ home pages and most other pages in the Facebook interface such as photos and apps.

Twitter has developed many new offerings to interest advertisers, like “promoted tweets” and “promoted trends.” These features give advertisers the ability to have their tweets displayed more prominently when Twitter users search for certain keywords. Many big advertisers are using Twitter’s Vine service, which allows users to share short, repeating videos with a mobile-phone app or post them on other platforms such as Facebook.

Lowe’s is using Facebook mobile video and Snapchat image messaging to help first-time millennial home buyers learn home improvement skills. The home improvement retailer launched a new series of social videos in April 2016 to showcase spring cleaning and do-it-yourself projects. Lowe’s believes this

Lowe’s “In-a-Snap” Snapchat series tries to inspire young homeowners and renters to undertake simple home improvement projects such as installing shelves to build a study nook. During the Lowe’s Snapchat story, users can tap on the screen to put a nail in a wall or chisel off an old tile. Lowe’s is working on another series of video tutorials on Facebook and Instagram called “Home School” that uses drawings from chalk artists to animate maintenance projects.

Lowe’s social media activities have helped increase brand engagement. Although the company’s social campaigns are designed to teach first-time homeowners or young renters about home improvement, the company is also hoping they will encourage consumers to think differently about the brand beyond its products and services. Management believes millennials who are becoming first-time homeowners want to know the deeper meaning of what a company is trying to stand for, not just the products and services it offers.

An estimated 90 percent of customers are influenced by online reviews, and nearly half of U.S. social media users actively seek customer service through social media. As a result, marketing is now placing much more emphasis on customer satisfaction and customer service. Social media monitoring helps marketers and business owners understand more about likes, dislikes, and complaints concerning products, additional products or product modifications customers want, and how people are talking about a brand (positive or negative sentiment).

General Motors (GM) has 26 full-time social media customer care advisers for North America alone, covering more than 150 company social channels from GM, Chevrolet, Buick, GMC, and Cadillac, and approximately 95 sites such as automotive enthusiast

Each chapter contains two Interactive Sessions on Management, Organizations, or Technology using real-world companies to illustrate chapter concepts and issues.

Case Study Questions encourage students to apply chapter concepts to real-world companies in class discussions, student presentations, or writing assignments.

CASE STUDY QUESTIONS

1. Assess the management, organization, and technology issues for using social media technology to engage with customers.
2. What are the advantages and disadvantages of using social media for advertising, brand building, market research, and customer service?
3. Give an example of a business decision in this case study that was facilitated by using social media to interact with customers.
4. Should all companies use social media technology for customer service and marketing? Why or why not? What kinds of companies are best suited to use these platforms?

- **Collaboration and Teamwork Projects.** Each chapter features a collaborative project that encourages students working in teams to use Google Drive, Google Docs, or other open source collaboration tools. The first team project in Chapter 1 asks students to build a collaborative Google site.

Assessment and AACSB Assessment Guidelines

The Association to Advance Collegiate Schools of Business (AACSB) is a not-for-profit corporation of educational institutions, corporations, and other organizations that seeks to improve business education primarily by accrediting university business programs. As a part of its accreditation activities, the AACSB has

Management Decision Problems

- 11-8** U.S. Pharma Corporation is headquartered in New Jersey but has research sites in Germany, France, the United Kingdom, Switzerland, and Australia. Research and development of new pharmaceuticals is key to ongoing profits, and U.S. Pharma researches and tests thousands of possible drugs. The company's researchers need to share information with others within and outside the company, including the U.S. Food and Drug Administration, the World Health Organization, and the International Federation of Pharmaceutical Manufacturers & Associations. Also critical is access to health information sites, such as the U.S. National Library of Medicine, and to industry conferences and professional journals. Design a knowledge portal for U.S. Pharma's researchers. Include in your design specifications relevant internal systems and databases, external sources of information, and internal and external communication and collaboration tools. Design a home page for your portal.
- 11-9** Canadian Tire is one of Canada's largest companies, with 50,000 employees and 1,100 stores and gas bars (gas stations) across Canada selling sports, leisure, home products, apparel, and financial services as well as automotive and petroleum products. The retail outlets are independently owned and operated. Canadian Tire has been using daily mailings and thick product catalogs to inform its dealers about new products, merchandise setups, best practices, product ordering, and problem resolution, and it is looking for a better way to provide employees with human resources and administrative documents. Describe the problems created by this way of doing business and how knowledge management systems might help.

Two real-world business scenarios per chapter provide opportunities for students to apply chapter concepts and practice management decision making.

Store #	Sales Region	Item Description	Unit Price	Units Sold	Week Ending
1	South	2005 17" Monitor	\$229.00	28	10/27/2016
2	1 South	2005 17" Monitor	\$229.00	30	11/24/2016
3	1 South	2005 17" Monitor	\$229.00	9	12/29/2016
4	1 South	3006 101 Keyboard	\$19.95	30	10/27/2016
5	1 South	3006 101 Keyboard	\$19.95	35	11/24/2016
6	1 South	3006 101 Keyboard	\$19.95	39	12/29/2016
7	1 South	6050 PC Mouse	\$8.95	28	10/27/2016
8	1 South	6050 PC Mouse	\$8.95	3	11/24/2016
9	1 South	6050 PC Mouse	\$8.95	38	12/29/2016
10	1 South	8500 Desktop CPU	\$849.95	25	10/27/2016
11	1 South	8500 Desktop CPU	\$849.95	27	11/24/2016
12	1 South	8500 Desktop CPU	\$849.95	33	12/29/2016
13	2 South	2005 17" Monitor	\$229.00	8	10/27/2016
14	2 South	2005 17" Monitor	\$229.00	8	11/24/2016
15	2 South	2005 17" Monitor	\$229.00	10	12/29/2016
16	2 South	3006 101 Keyboard	\$19.95	8	10/27/2016
17	2 South	3006 101 Keyboard	\$19.95	8	11/24/2016
18	2 South	3006 101 Keyboard	\$19.95	8	12/29/2016
19	2 South	6050 PC Mouse	\$8.95	9	10/27/2016
20	2 South	6050 PC Mouse	\$8.95	9	11/24/2016
21	2 South	6050 PC Mouse	\$8.95	8	12/29/2016
22	2 South	8500 Desktop CPU	\$849.95	18	10/27/2016

Students practice using software in real-world settings for achieving operational excellence and enhancing decision making.

Improving Decision Making: Using Web Tools to Configure and Price an Automobile

Software skills: Internet-based software

Business skills: Researching product information and pricing

- 3-11** In this exercise, you will use software at car websites to find product information about a car of your choice and use that information to make an important purchase decision. You will also evaluate two of these sites as selling tools.

You are interested in purchasing a new Ford Escape (or some other car of your choice). Go to the website of CarsDirect (www.carsdirect.com) and begin your investigation. Locate the Ford Escape. Research the various Escape models, and choose one you prefer in terms of price, features, and safety ratings. Locate and read at least two reviews. Surf the website of the manufacturer, in this case Ford (www.ford.com). Compare the information available on Ford's website with that of CarsDirect for the Ford Escape. Try to locate the lowest price for the car you want in a local dealer's inventory. Suggest improvements for CarsDirect.com and Ford.com.

Each chapter features a project to develop Internet skills for accessing information, conducting research, and performing online calculations and analysis.

developed an Assurance of Learning Program designed to ensure that schools do in fact teach students what they promise. Schools are required to state a clear mission, develop a coherent business program, identify student learning objectives, and then prove that students do in fact achieve the objectives.

We have attempted in this book to support AACSB efforts to encourage assessment-based education. The back end papers of this edition identify student learning objectives and anticipated outcomes for our Hands-On MIS projects. The authors will provide custom advice on how to use this text in colleges with different missions and assessment needs. Please e-mail the authors or contact your local Pearson representative for contact information.

For more information on the AACSB Assurance of Learning Program and how this text supports assessment-based learning, please visit the website for this book.

Customization and Flexibility: Learning Track Modules

Our Learning Tracks feature gives instructors the flexibility to provide in-depth coverage of the topics they choose. There are 47 Learning Tracks in MyMISLab available to instructors and students. This supplementary content takes students deeper into MIS topics, concepts, and debates; reviews basic technology concepts in hardware, software, database design, telecommunications, and other areas.

Author-Certified Test Bank and Supplements

- **Author-Certified Test Bank.** The authors have worked closely with skilled test item writers to ensure that higher-level cognitive skills are tested. Test bank multiple-choice questions include questions on content but also include many questions that require analysis, synthesis, and evaluation skills.
- **Annotated Slides.** The authors have prepared a comprehensive collection of 50 PowerPoint slides for each chapter to be used in your lectures. Many of these slides are the same as used by Ken Laudon in his MIS classes and executive education presentations. Each of the slides is annotated with teaching suggestions for asking students questions, developing in-class lists that illustrate key concepts, and recommending other firms as examples in addition to those provided in the text. The annotations are like an Instructor's Manual built into the slides and make it easier to teach the course effectively.

Student Learning-Focused

Student Learning Objectives are organized around a set of study questions to focus student attention. Each chapter concludes with a Review Summary and Review Questions organized around these study questions, and each major chapter section is based on a Learning Objective.

Career Resources

The Instructor Resources for this text include extensive Career Resources, including job-hunting guides and instructions on how to build a Digital Portfolio demonstrating the business knowledge, application software proficiency, and Internet skills acquired from using the text. The portfolio can be included in a resume or job application or used as a learning assessment tool for instructors.

Instructor Resources

At the Instructor Resource Center, www.pearsonhighered.com/irc, instructors can easily register to gain access to a variety of instructor resources available with this text in downloadable format. If assistance is needed, our dedicated technical support team is ready to help with the media supplements that accompany this text. Visit <http://247.pearsoned.com> for answers to frequently asked questions and toll-free user support phone numbers.

The following supplements are available with this text:

- Instructor's Resource Manual
- Test Bank

- TestGen® Computerized Test Bank
- PowerPoint Presentation
- Image Library
- Lecture Notes

Video Cases and Instructional Videos

Instructors can download step-by-step instructions for accessing the video cases from the Instructor Resources Center. Video Cases and Instructional Videos are listed at the beginning of each chapter as well as in the Preface.

Learning Tracks Modules

There are 47 Learning Tracks in MyMISLab providing additional coverage topics for students and instructors. See page xxvi for a list of the Learning Tracks available for this edition.

Video Cases and Instructional Videos

Chapter	Video
Chapter 1: Information Systems in Global Business Today	Business in the Cloud: Facebook and eBay Data Centers UPS Global Operations with the DIAD Instructional Video: Tour IBM's Raleigh Data Center
Chapter 2: Global E-business and Collaboration	Walmart's Retail Link Supply Chain CEMEX: Becoming a Social Business Instructional Video: US Foodservice Grows Market with Oracle CRM on Demand
Chapter 3: Information Systems, Organizations, and Strategy	GE Becomes a Digital Firm: The Emerging Industrial Internet National Basketball Association: Competing on Global Delivery with Akamai OS Streaming
Chapter 4: Ethical and Social Issues in Information Systems	What Net Neutrality Means for You Facebook and Google Privacy: What Privacy? The United States v. Terrorism: Data Mining for Terrorists and Innocents Instructional Video: Viktor Mayer Schönberger on the Right to Be Forgotten
Chapter 5: IT Infrastructure and Emerging Technologies	Rockwell Automation Fuels the Oil and Gas Industry with the Internet of Things (IoT) ESPN.com: The Future of Sports Broadcasting in the Cloud Netflix: Building a Business in the Cloud
Chapter 6: Foundations of Business Intelligence: Databases and Information Management	Dubuque Uses Cloud Computing and Sensors to Build a Smarter City Brooks Brothers Closes in on Omnichannel Retail Maruti Suzuki Business Intelligence and Enterprise Databases
Chapter 7: Telecommunications, the Internet, and Wireless Technology	Telepresence Moves out of the Boardroom and into the Field Virtual Collaboration with IBMSametime
Chapter 8: Securing Information Systems	Stuxnet and Cyberwarfare Cyberespionage: The Chinese Threat Instructional Video: Sony PlayStation Hacked; Data Stolen from 77 Million Users Instructional Video: Meet the Hackers: Anonymous Statement on Hacking SONY
Chapter 9: Achieving Operational Excellence and Customer Intimacy: Enterprise Applications	Life Time Fitness Gets in Shape with Salesforce CRM Evolution Homecare Manages Patients with Microsoft CRM Instructional Video: GSMS Protects Products and Patients by Serializing Every Bottle of Drugs
Chapter 10: E-commerce: Digital Markets, Digital Goods	Walmart Takes on Amazon: A Battle of IT and Management Systems Groupon: Deals Galore Etsy: A Marketplace and Community Instructional Video: Walmart's eCommerce Fulfillment Center Network Instructional Video: Behind the Scenes of an Amazon Warehouse
Chapter 11: Managing Knowledge	How IBM's Watson Became a Jeopardy Champion Alfresco: Open Source Document Management and Collaboration
Chapter 12: Enhancing Decision Making	PSEG Leverages Big Data and Business Analytics Using GE's PREDIX Platform FreshDirect Uses Business Intelligence to Manage Its Online Grocery. Business Intelligence Helps the Cincinnati Zoo Work Smarter

Video Cases and Instructional Videos (Continued)

Chapter	Video
Chapter 13 Building Information Systems	IBM: Business Process Management in a SaaS Environment IBM Helps the City of Madrid with Real-Time BPM Software Instructional Video: BPM: Business Process Management Customer Story Instructional Video: Workflow Management Visualized
Chapter 14 Managing Projects	Blue Cross Blue Shield: Smarter Computing Project NASA Project Management Challenges
Chapter 15 Managing Global Systems	Daum Runs Oracle Apps on Linux Lean Manufacturing and Global ERP: Humanetics and Global Shop

Learning Tracks

Chapter	Learning Tracks
Chapter 1: Information Systems in Global Business Today	How Much Does IT Matter? Information Systems and Your Career The Mobile Digital Platform
Chapter 2: Global E-business and Collaboration	Systems From a Functional Perspective IT Enables Collaboration and Teamwork Challenges of Using Business Information Systems Organizing the Information Systems Function Occupational and Career Outlook for Information Systems Majors 2014–2020
Chapter 3: Information Systems, Organizations, and Strategy	The Changing Business Environment for IT
Chapter 4: Ethical and Social Issues in Information Systems	Developing a Corporate Code of Ethics for IT
Chapter 5: IT Infrastructure and Emerging Technologies	How Computer Hardware Works How Computer Software Works Service Level Agreements The Open Source Software Initiative Comparing Stages in IT Infrastructure Evolution Cloud Computing
Chapter 6: Foundations of Business Intelligence: Databases and Information Management	Database Design, Normalization, and Entity-Relationship Diagramming Introduction to SQL Hierarchical and Network Data Models
Chapter 7: Telecommunications, the Internet, and Wireless Technology	Broadband Network Services and Technologies Cellular System Generations Wireless Applications for Customer Relationship Management, Supply Chain Management, and Healthcare Introduction to Web 2.0 LAN Topologies
Chapter 8: Securing Information Systems	The Booming Job Market in IT Security The Sarbanes-Oxley Act Computer Forensics General and Application Controls for Information Systems Management Challenges of Security and Control Software Vulnerability and Reliability
Chapter 9: Achieving Operational Excellence and Customer Intimacy: Enterprise Applications	SAP Business Process Map Business Processes in Supply Chain Management and Supply Chain Metrics Best-Practice Business Processes in CRM Software
Chapter 10: E-commerce: Digital Markets, Digital Goods	E-commerce Challenges: The Story of Online Groceries Build an E-commerce Business Plan Hot New Careers in E-Commerce E-commerce Payment Systems Building an E-commerce Website
Chapter 11: Managing Knowledge	Challenges of Knowledge Management Systems
Chapter 12: Enhancing Decision Making	Building and Using Pivot Tables