

MANAGEMENT INFORMATION SYSTEMS

MANAGING THE DIGITAL FIRM

SIXTEENTH EDITION

GLOBAL EDITION

Kenneth C. Laudon

New York University

Jane P. Laudon

Azimuth Information Systems



Pearson

Harlow, England • London • New York • Boston • San Francisco • Toronto • Sydney • Dubai • Singapore • Hong Kong
Tokyo • Seoul • Taipei • New Delhi • Cape Town • Sao Paulo • Mexico City • Madrid • Amsterdam • Munich • Paris • Milan

BRIEF CONTENTS

PART ONE Organizations, Management, and the Networked Enterprise 33

- Chapter 1 Information Systems in Global Business Today 34
- Chapter 2 Global E-business and Collaboration 72
- Chapter 3 Information Systems, Organizations, and Strategy 110
- Chapter 4 Ethical and Social Issues in Information Systems 152

PART TWO Information Technology Infrastructure 193

- Chapter 5 IT Infrastructure and Emerging Technologies 194
- Chapter 6 Foundations of Business Intelligence: Databases and Information Management 242
- Chapter 7 Telecommunications, the Internet, and Wireless Technology 282
- Chapter 8 Securing Information Systems 326

PART THREE Key System Applications for the Digital Age 369

- Chapter 9 Achieving Operational Excellence and Customer Intimacy: Enterprise Applications 370
- Chapter 10 E-commerce: Digital Markets, Digital Goods 404
- Chapter 11 Managing Knowledge and Artificial Intelligence 450
- Chapter 12 Enhancing Decision Making 490

PART FOUR Building and Managing Systems 523

- Chapter 13 Building Information Systems 524
- Chapter 14 Managing Projects 564
- Chapter 15 Managing Global Systems 596

Glossary 626

Indexes 638

PART ONE Organizations, Management, and the Networked Enterprise 33

Chapter 1 Information Systems in Global Business Today 34

Opening Case: Premier League: The Power of IT Analytics 35

1-1 How are information systems transforming business, and why are they so essential for running and managing a business today? 37

How Information Systems Are Transforming Business 38 • What's New in Management Information Systems? 39

Interactive Session | Management Can You Run the Company with Your iPhone? 41

Globalization Challenges and Opportunities: A Flattened World 43 • The Emerging Digital Firm 44 • Strategic Business Objectives of Information Systems 45

1-2 What is an information system? How does it work? What are its management, organization, and technology components? Why are complementary assets essential for ensuring that information systems provide genuine value for organizations? 48

What Is an Information System? 48 • Dimensions of Information Systems 50

Interactive Session | Technology Digital Transformation of Healthcare at Singapore's JurongHealth Services 55

It Isn't Just Technology: A Business Perspective on Information Systems 56 • Complementary Assets: Organizational Capital and the Right Business Model 58

1-3 What academic disciplines are used to study information systems, and how does each contribute to an understanding of information systems? 60

Technical Approach 60 • Behavioral Approach 61 • Approach of This Text: Sociotechnical Systems 61

1-4 How will MIS help my career? 62

The Company 62 • Position Description 63 • Job Requirements 63 • Interview Questions 63 • Author Tips 63

Review Summary 64 • Key Terms 65 • Review Questions 65 • Discussion Questions 66

Hands-On MIS Projects 66

Collaboration and Teamwork Project 67

Case Study: Changes in the Financial Industry: Adyen and Fintech 68

References: 71

Chapter 2

Global E-business and Collaboration 72

Opening Case: Enterprise Social Networking Helps Sanofi Pasteur Innovate and Improve Quality 73

2-1 What are business processes? How are they related to information systems? 75

Business Processes 75 • How Information Technology Improves Business Processes 77

2-2 How do systems serve the different management groups in a business, and how do systems that link the enterprise improve organizational performance? 77

Systems for Different Management Groups 78 • Systems for Linking the Enterprise 83

Interactive Session | Organizations How City Football Group and SAP Manage a Winning Combination 84

• E-business, E-commerce, and E-government 87

2-3 Why are systems for collaboration and social business so important, and what technologies do they use? 88

What Is Collaboration? 88 • What Is Social Business? 89 • Business Benefits of Collaboration and Social Business 90 • Building a Collaborative Culture and Business Processes 92 • Tools and Technologies for Collaboration and Social Business 92

Interactive Session | Technology Collaborating the Glasscubes Way 94

2-4 What is the role of the information systems function in a business? 98

The Information Systems Department 98 • Organizing the Information Systems Function 100

2-5 How will MIS help my career? 100

The Company 100 • Position Description 100 • Job Requirements 101 • Interview Questions 101 • Author Tips 101

Review Summary 102 • Key Terms 103 • Review Questions 103 • Discussion Questions 104

Hands-On MIS Projects 104

Collaboration and Teamwork Project 105

Case Study: Can a Rugby Union Teach Businesses How to Turn Customers into Supporters? 106

References: 109

Chapter 3

Information Systems, Organizations, and Strategy 110

Opening Case: Tate & Lyle Devise a Global IT Strategy 111

3-1 Which features of organizations do managers need to know about to build and use information systems successfully? 113

What Is an Organization? 113 • Features of Organizations 116

3-2 What is the impact of information systems on organizations? 121

Economic Impacts 121 • Organizational and Behavioral Impacts 122 • The Internet and Organizations 125 • Implications for the Design and Understanding of Information Systems 125

- 3-3** How do Porter's competitive forces model, the value chain model, synergies, core competencies, and network economics help companies develop competitive strategies using information systems? 126
 Porter's Competitive Forces Model 126 • Information System Strategies for Dealing with Competitive Forces 128
- Interactive Session | Organizations** Will AI Replace Managers? 130
 The Internet's Impact on Competitive Advantage 132 • The Business Value Chain Model 133
- Interactive Session | Technology** Singapore as a Smart Nation 134
 Synergies, Core Competencies, and Network-Based Strategies 137
- 3-4** What are the challenges posed by strategic information systems, and how should they be addressed? 141
 Sustaining Competitive Advantage 141 • Aligning IT with Business Objectives 141 • Managing Strategic Transitions 142
- 3-5** How will MIS help my career? 143
 The Company 143 • Position Description 143 • Job Requirements 143 • Interview Questions 144 • Author Tips 144
- Review Summary 144 • Key Terms 145 • Review Questions 145 • Discussion Questions 146
- Hands-On MIS Projects 146
 Collaboration and Teamwork Project 147
- Case Study:** Offline, Online, and Back: The Evolution of the UK Grocery Market 148
- References:** 150

Chapter 4

Ethical and Social Issues in Information Systems 152

- Opening Case:** Are Cars Becoming Big Brother on Wheels? 153
- 4-1** What ethical, social, and political issues are raised by information systems? 155
 A Model for Thinking about Ethical, Social, and Political Issues 156 • Five Moral Dimensions of the Information Age 158 • Key Technology Trends that Raise Ethical Issues 158
- 4-2** What specific principles for conduct can be used to guide ethical decisions? 161
 Basic Concepts: Responsibility, Accountability, and Liability 161 • Ethical Analysis 161 • Candidate Ethical Principles 162 • Professional Codes of Conduct 163 • Some Real-World Ethical Dilemmas 163
- 4-3** Why do contemporary information systems technology and the Internet pose challenges to the protection of individual privacy and intellectual property? 163
 Information Rights: Privacy and Freedom in the Internet Age 164 • Property Rights: Intellectual Property 170
- 4-4** How have information systems affected laws for establishing accountability and liability and the quality of everyday life? 174
 Computer-Related Liability Problems 174 • System Quality: Data Quality and System Errors 175 • Quality of Life: Equity, Access, and Boundaries 176

- Interactive Session | Organizations** Will AI Kill Jobs? 180
 - Health Risks: RSI, CVS, and Cognitive Decline 181
- Interactive Session | Technology** Volkswagen Pollutes Its Reputation with Software to Evade Emissions Testing 183
- 4-5** How will MIS help my career? 184
 - The Company 184 • Position Description 184 • Job Requirements 184 • Interview Questions 185 • Author Tips 185
- Review Summary 185 • Key Terms 186 • Review Questions 186 • Discussion Questions 187
- Hands-On MIS Projects 187
- Collaboration and Teamwork Project 188
- Case Study:** Facebook Privacy: Your Life for Sale 189
- References:** 192

PART TWO Information Technology Infrastructure 193

Chapter 5 IT Infrastructure and Emerging Technologies 194

- Opening Case:** Southeast Asia's Grab Leverages Information Technology to Enhance Its Services 195
- 5-1** What is IT infrastructure, and what are the stages and drivers of IT infrastructure evolution? 197
 - Defining IT Infrastructure 197 • Evolution of IT Infrastructure 199 • Technology Drivers of Infrastructure Evolution 203
- 5-2** What are the components of IT infrastructure? 207
 - Computer Hardware Platforms 208 • Operating System Platforms 210 • Enterprise Software Applications 210 • Data Management and Storage 211 • Networking/Telecommunications Platforms 211 • Internet Platforms 211 • Consulting and System Integration Services 212
- 5-3** What are the current trends in computer hardware platforms? 212
 - The Mobile Digital Platform 212 • Consumerization of IT and BYOD 212
- Interactive Session | Technology** Open Source Innovation: The New Competitive Advantage 213
 - Quantum Computing 215 • Virtualization 215 • Cloud Computing 215
- Interactive Session | Organizations** Glory Finds Solutions in the Cloud 218
 - Edge Computing 220 • Green Computing 221 • High-Performance and Power-Saving Processors 222
- 5-4** What are the current computer software platforms and trends? 222
 - Linux and Open Source Software 222 • Software for the Web: Java, HTML, and HTML5 223 • Web Services and Service-Oriented Architecture 224 • Software Outsourcing and Cloud Services 225
- 5-5** What are the challenges of managing IT infrastructure and management solutions? 228

Dealing with Platform and Infrastructure Change 228 • Management and Governance 229 • Making Wise Infrastructure Investments 229

5-6 How will MIS help my career? 232

The Company 232 • Position Description 232 • Job Requirements 232 • Interview Questions 233 • Author Tips 233

Review Summary 233 • Key Terms 234 • Review Questions 235 • Discussion Questions 236

Hands-On MIS Projects 236

Collaboration and Teamwork Project 237

Case Study: Is BYOD Good for Business? 238

References: 241

Chapter 6

Foundations of Business Intelligence: Databases and Information Management 242

Opening Case: Data Management Enables Smarter Energy Generation in Australia 243

6-1 What are the problems of managing data resources in a traditional file environment? 245

File Organization Terms and Concepts 245 • Problems with the Traditional File Environment 246

6-2 What are the major capabilities of database management systems (DBMS), and why is a relational DBMS so powerful? 248

Database Management Systems 249 • Capabilities of Database Management Systems 251 • Designing Databases 254 • Non-relational Databases, Cloud Databases, and Blockchain 256

6-3 What are the principal tools and technologies for accessing information from databases to improve business performance and decision making? 259

The Challenge of Big Data 259 • Business Intelligence Infrastructure 260

Interactive Session | Technology Societe Generale Builds an Intelligent System to Manage Information Flow 262

Analytical Tools: Relationships, Patterns, Trends 263 • Databases and the Web 267

6-4 Why are information policy, data administration, and data quality assurance essential for managing the firm's data resources? 268

Establishing an Information Policy 268 • Ensuring Data Quality 269

Interactive Session | Organizations Data-Driven Policing Goes Global 271

6-5 How will MIS help my career? 272

The Company 272 • Position Description 272 • Job Requirements 273 • Interview Questions 273 • Author Tips 273

Review Summary 273 • Key Terms 274 • Review Questions 275 • Discussion Questions 276

Hands-On MIS Projects 276

Collaboration and Teamwork Project 277

Case Study: How Reliable Is Big Data? 278

References: 280

Chapter 7

Telecommunications, the Internet, and Wireless Technology 282

Opening Case: Alibaba: Redefining Traditional Retailing 283

7-1 What are the principal components of telecommunications networks and key networking technologies? 285

Networking and Communication Trends 285 • What Is a Computer Network? 286 • Key Digital Networking Technologies 288

7-2 What are the different types of networks? 291

Signals: Digital Versus Analog 291 • Types of Networks 291 • Transmission Media and Transmission Speed 293

7-3 How do the Internet and Internet technology work, and how do they support communication and e-business? 293

What Is the Internet? 293 • Internet Addressing and Architecture 294

Interactive Session | Organizations The Global Battle over Net Neutrality 297

Internet Services and Communication Tools 299

Interactive Session | Management Singapore Shuts Down 2G Network 302

The Web 303

7-4 What are the principal technologies and standards for wireless networking, communication, and Internet access? 311

Cellular Systems 311 • Wireless Computer Networks and Internet Access 312 • RFID and Wireless Sensor Networks 314

7-5 How will MIS help my career? 317

The Company 317 • Position Description 317 • Job Requirements 317 • Interview Questions 318 • Author Tips 318

Review Summary 318 • Key Terms 319 • Review Questions 320 • Discussion Questions 320

Hands-On MIS Projects 320

Collaboration and Teamwork Project 321

Case Study: Google, Apple, and Facebook Battle for Your Internet Experience 322

References: 325

Chapter 8

Securing Information Systems 326

Opening Case: Cyberattacks in the Asia-Pacific Target the Weakest Link: People 327

8-1 Why are information systems vulnerable to destruction, error, and abuse? 329

Why Systems are Vulnerable 330 • Malicious Software: Viruses, Worms, Trojan Horses, and Spyware 331 • Hackers and Computer Crime 334 • Internal Threats: Employees 338 • Software Vulnerability 339

8-2 What is the business value of security and control? 340

Legal and Regulatory Requirements for Electronic Records Management 340

Interactive Session | Technology Meltdown and Spectre Haunt the World's Computers 341

Electronic Evidence and Computer Forensics 343

- 8-3** What are the components of an organizational framework for security and control? 344
 Information Systems Controls 344 • Risk Assessment 345 • Security Policy 346 • Disaster Recovery Planning and Business Continuity Planning 347 • The Role of Auditing 347
- 8-4** What are the most important tools and technologies for safeguarding information resources? 348
 Identity Management and Authentication 348 • Firewalls, Intrusion Detection Systems, and Anti-malware Software 350 • Securing Wireless Networks 352 • Encryption and Public Key Infrastructure 352 • Securing Transactions with Blockchain 354 • Ensuring System Availability 355 • Security Issues for Cloud Computing and the Mobile Digital Platform 355
- Interactive Session | Management** Phishing for Money: Dangerous Emails 356
 Ensuring Software Quality 358
- 8-5** How will MIS help my career? 359
 The Company 359 • Position Description 359 • Job Requirements 359 • Interview Questions 359 • Author Tips 360
- Review Summary 360 • Key Terms 361 • Review Questions 362 • Discussion Questions 362
- Hands-On MIS Projects 362
 Collaboration and Teamwork Project 364
- Case Study:** Information Security Threats and Policies in Europe 365
- References:** 367

PART THREE Key System Applications for the Digital Age 369

Chapter 9 Achieving Operational Excellence and Customer Intimacy: Enterprise Applications 370

Opening Case: Warehouse Management at Norauto: Conversational Commerce 371

- 9-1** How do enterprise systems help businesses achieve operational excellence? 373
 What are Enterprise Systems? 373 • Enterprise Software 374 • Business Value of Enterprise Systems 375

- 9-2** How do supply chain management systems coordinate planning, production, and logistics with suppliers? 376

Interactive Session | Management Physical Flow in Alibaba 377

The Supply Chain 378 • Information Systems and Supply Chain Management 380 • Supply Chain Management Software 381 • Global Supply Chains and the Internet 382 • Business Value of Supply Chain Management Systems 384

- 9-3** How do customer relationship management systems help firms achieve customer intimacy? 384

What Is Customer Relationship Management? 385 • Customer Relationship Management Software 385 • Operational and Analytical CRM 389 • Business Value of Customer Relationship Management Systems 389

- 9-4** What are the challenges that enterprise applications pose, and how are enterprise applications taking advantage of new technologies? 390
Enterprise Application Challenges 390
- Interactive Session | Organizations** Kenya Airways Flies High with Customer Relationship Management 391
Next-Generation Enterprise Applications 393
- 9-5** How will MIS help my career? 395
The Company 395 • Position Description 395 • Job Requirements 395 • Interview Questions 395 • Author Tips 396
- Review Summary 396 • Key Terms 397 • Review Questions 397 • Discussion Questions 398
- Hands-On MIS Projects 398
- Collaboration and Teamwork Project 399
- Case Study:** Fast Fashion, Big Data, and Zara 400
- References:** 402

Chapter 10

- E-commerce: Digital Markets, Digital Goods 404
- Opening Case:** Uber Storms Europe. Europe Strikes Back. 405
- 10-1** What are the unique features of e-commerce, digital markets, and digital goods? 407
E-commerce Today 408 • The New E-commerce: Social, Mobile, Local 409 • Why E-commerce Is Different 411 • Key Concepts in E-commerce: Digital Markets and Digital Goods in a Global Marketplace 414
- 10-2** What are the principal e-commerce business and revenue models? 417
Types of E-commerce 417 • E-commerce Business Models 418
- Interactive Session | Organizations** Deliveroo: Australian Food Delivery App 421
E-commerce Revenue Models 422
- 10-3** How has e-commerce transformed marketing? 424
Behavioral Targeting 425 • Social E-commerce and Social Network Marketing 428
- Interactive Session | Management** Socializing with Customers 431
- 10-4** How has e-commerce affected business-to-business transactions? 432
Electronic Data Interchange (EDI) 433 • New Ways of B2B Buying and Selling 434
- 10-5** What is the role of m-commerce in business, and what are the most important m-commerce applications? 436
Location-Based Services and Applications 437 • Other Mobile Commerce Services 438
- 10-6** What issues must be addressed when building an e-commerce presence? 438
Develop an E-commerce Presence Map 438 • Develop a Timeline: Milestones 439

- 10-7** How will MIS help my career? 440
 The Company 440 • Job Description 440 • Job Requirements 441 •
 Interview Questions 441 • Author Tips 441
 Review Summary 442 • Key Terms 442 • Review Questions 443 •
 Discussion Questions 444
 Hands-On MIS Projects 444
 Collaboration and Teamwork Project 445
Case Study: An iDEAL Solution to the Single Online EU Market 446
References: 448

Chapter 11

Managing Knowledge and Artificial Intelligence 450

Opening Case: Roche: Managing Diabetes with Big Data and Mobile Apps 451

- 11-1** What is the role of knowledge management systems in business? 453
 Important Dimensions of Knowledge 454 • The Knowledge Management Value Chain 455 • Types of Knowledge Management Systems 458
- 11-2** What are artificial intelligence (AI) and machine learning? How do businesses use AI? 459
 Evolution of AI 459 • Major Types of AI 460 • Expert Systems 460 • Machine Learning 462 • Neural Networks 464 • Genetic Algorithms 467 • Natural Language Processing, Computer Vision Systems, and Robotics 468 • Intelligent Agents 469
- 11-3** What types of systems are used for enterprise-wide knowledge management, and how do they provide value for businesses? 470
 Enterprise Content Management Systems 471 • Locating and Sharing Expertise 472 • Learning Management Systems 473
- 11-4** What are the major types of knowledge work systems, and how do they provide value for firms? 473
 Knowledge Workers and Knowledge Work 473
- Interactive Session | Management** Singapore Sports Institute Uses Analytics for SEA Games 474
 Requirements of Knowledge Work Systems 475 • Examples of Knowledge Work Systems 476
- Interactive Session | Technology** Will Robots Replace People in Manufacturing? 478
- 11-5** How will MIS help my career? 479
 The Company 479 • Position Description 480 • Job Requirements 480 • Interview Questions 480 • Author Tips 480
 Review Summary 481 • Key Terms 482 • Review Questions 482 • Discussion Questions 483
 Hands-On MIS Projects 483
 Collaboration and Teamwork Project 484
Case Study: GE Bets on the Internet of Things and Big Data Analytics 485
References: 488

Chapter 12 Enhancing Decision Making 490

Opening Case: Eastspring: Targeted Enterprise System Building 491

12-1 What are the different types of decisions, and how does the decision-making process work? 493

Business Value of Improved Decision Making 493 • Types of Decisions 494 • The Decision-Making Process 495

12-2 How do information systems support the activities of managers and management decision making? 496

Managerial Roles 496 • Real-World Decision Making 498 • High-Velocity Automated Decision Making 499

12-3 How do business intelligence and business analytics support decision making? 500

What Is Business Intelligence? 500 • The Business Intelligence Environment 500 • Business Intelligence and Analytics Capabilities 502

Interactive Session | Technology Siemens Makes Business Processes More Visible 503

12-4 How do different decision-making constituencies in an organization use business intelligence, and what is the role of information systems in helping people working in a group make decisions more efficiently? 507

Decision Support for Operational and Middle Management 507 • Decision Support for Senior Management: Balanced Scorecard and Enterprise Performance Management Methods 510

Interactive Session | Management Fujitsu Selects a SaaS Solution to Simplify the Sales Process 512

Group Decision-Support Systems (GDSS) 513

12-5 How will MIS help my career? 514

The Company 514 • Position Description 514 • Job Requirements 514 • Interview Questions 515 • Author Tips 515

Review Summary 515 • Key Terms 516 • Review Questions 517 • Discussion Questions 517

Hands-On MIS Projects 517

Collaboration and Teamwork Project 518

Case Study: Better for Business, Better for the Environment 519

References: 521

PART FOUR Building and Managing Systems 523

Chapter 13 Building Information Systems 524

Opening Case: Building a Healthy Case-Management System 525

13-1 How does building new systems produce organizational change? 527
Systems Development and Organizational Change 527

Interactive Session | Organizations Business Process Redesign at DP World 529

Business Process Redesign 530

- 13-2** What are the core activities in the systems development process? 534
Systems Analysis 534 • Systems Design 535 • Completing the Systems Development Process 536
- 13-3** What are the principal methodologies for modeling and designing systems? 539
Structured Methodologies 539 • Object-Oriented Development 541 • Computer-Aided Software Engineering 543
- 13-4** What are alternative methods for building information systems? 543
Traditional Systems Life Cycle 543 • Prototyping 544 • End-User Development 546 • Application Software Packages, Software Services, and Outsourcing 546
- 13-5** What are new approaches for system building in the digital firm era? 549
Rapid Application Development (RAD), Agile Development, and DevOps 549 • Component-Based Development and Web Services 550 • Mobile Application Development: Designing for a Multiscreen World 551
- 13-6** How will MIS help my career? 552
The Company 552 • Position Description 552
- Interactive Session | Technology** Systems Development Is Different for Mobile Apps 553
Job Requirements 554 • Interview Questions 554 • Author Tips 555
- Review Summary 555 • Key Terms 556 • Review Questions 557 • Discussion Questions 557
- Hands-On MIS Projects 558
Collaboration and Teamwork Project 559
- Case Study:** Hitachi Consulting Moves Human Resources to the Cloud 560
- References:** 562

Chapter 14

Managing Projects 564

- Opening Case:** Al-Asasyah Implements a Modern ERP Solution 565
- 14-1** What are the objectives of project management, and why is it so essential in developing information systems? 567
Runaway Projects and System Failure 567 • Project Management Objectives 568
- 14-2** What methods can be used for selecting and evaluating information systems projects and aligning them with the firm's business goals? 569
Management Structure for Information Systems Projects 569 • Linking Systems Projects to the Business Plan 570 • Portfolio Analysis 572 • Scoring Models 573
- 14-3** How can firms assess the business value of information systems? 574
Information System Costs and Benefits 574 • Capital Budgeting for Information Systems 574 • Limitations of Financial Models 575

- 14-4** What are the principal risk factors in information systems projects, and how can they be managed? 576
 Dimensions of Project Risk 576 • Change Management and the Concept of Implementation 577 • Controlling Risk Factors 579 • Designing for the Organization 582 • Project Management Software Tools 583
- Interactive Session | Management** Hilti AG: Putting Things Together with New Project Management Tools 584
- 14-5** How will MIS help my career? 585
 The Company 585
- Interactive Session | Technology** Arup Moves Project Management to the Cloud 586
 Position Description 587 • Job Requirements 587 • Interview Questions 588 • Author Tips 588
- Review Summary 588 • Key Terms 589 • Review Questions 589 • Discussion Questions 590
- Hands-On MIS Projects 590
- Collaboration and Teamwork Project 591
- Case Study:** Pennsylvania's Unemployment Compensation Modernization System: Unfinished Business 592
- References:** 594

Chapter 15

Managing Global Systems 596

- Opening Case:** The Bel Group: Laughing All the Way to Success 597
- 15-1** What major factors are driving the internationalization of business? 599
 Developing an International Information Systems Architecture 599 • The Global Environment: Business Drivers and Challenges 601 • State of the Art 604
- 15-2** What are the alternative strategies for developing global businesses? 604
 Global Strategies and Business Organization 605 • Global Systems to Fit the Strategy 606 • Reorganizing the Business 607
- 15-3** What are the challenges posed by global information systems and management solutions for these challenges? 607
 A Typical Scenario: Disorganization on a Global Scale 608 • Global Systems Strategy 608 • The Management Solution: Implementation 611
- 15-4** What are the issues and technical alternatives to be considered when developing international information systems? 612
 Computing Platforms and Systems Integration 613 • Connectivity 613 • Software Localization 614
- 15-5** How will MIS help my career? 615
 The Company 615
- Interactive Session | Technology** The Global Internet Goes Multimedia 616
 Position Description 617 • Job Requirements 617 • Interview Questions 617
- Interactive Session | Management** AbbVie Builds a Global Systems

Infrastructure 618

Author Tips 619

Review Summary 620 • Key Terms 620 • Review Questions 621 •
Discussion Questions 621

Hands-On MIS Projects 621

Collaboration and Teamwork Project 622

Case Study: Acquisition of Souq.com: Amazon's Entry into the Middle East 623

References: 625

Glossary 626

Indexes 638