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电子商务

(美) Gary P. Schneider 著
奎尼皮亚克大学

(英文精编版·第10版)

E-Business
(China Student Edition, Tenth Edition)

10th edition

E-Business

Gary Schneider

International
Edition



机械工业出版社
China Machine Press

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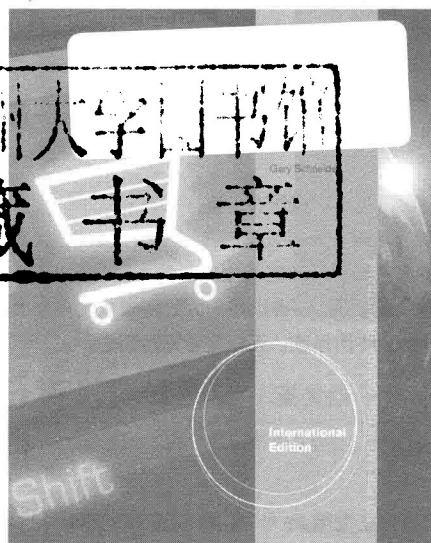
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China Machine Press

图书在版编目 (CIP) 数据

电子商务 (英文精编版·第10版) / (美) 施内德 (Schneider, G. P.) 著. —北京: 机械工业出版社, 2013.8
(经典原版书库)

书名原文: E-Business, China Student Edition, Tenth Edition

ISBN 978-7-111-43433-7

I. 电… II. 施… III. 电子商务—英文 IV. F713.36

中国版本图书馆 CIP 数据核字 (2013) 第 169064 号

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封底无防伪标均为盗版

本书法律顾问 北京市展达律师事务所

本书版权登记号: 图字: 01-2013-2586

Gary P. Schneider: E-Business, China Student Edition, Tenth Edition (ISBN 978-1-285-91338-4).

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机械工业出版社 (北京市西城区百万庄大街 22 号 邮政编码 100037)

责任编辑: 迟振春

北京诚信伟业印刷有限公司印刷

2013 年 8 月第 1 版第 1 次印刷

186mm × 240mm • 28.5 印张

标准书号: ISBN 978-7-111-43433-7

定 价: 69.00 元

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出版者的话

文艺复兴以降,源远流长的科学精神和逐步形成的学术规范,使西方国家在自然科学的各个领域取得了垄断性的优势;也正是这样的传统,使美国在信息技术发展的六十多年间名家辈出、独领风骚。在商业化的进程中,美国的产业界与教育界越来越紧密地结合,信息学科中的许多泰山北斗同时身处科研和教学的最前线,由此而产生的经典科学著作,不仅肇划了研究的范畴,还揭示了学术的源变,既遵循学术规范,又自有学者个性,其价值并不会因年月的流逝而减退。

近年,在全球信息化大潮的推动下,我国的信息产业发展迅猛,对专业人才的需求日益迫切。这对我国教育界和出版界都既是机遇,也是挑战;而专业教材的建设在教育战略上显得举足轻重。在我国信息技术发展时间较短的现状下,美国等发达国家在其信息科学发展的几十年间积淀和发展的经典教材仍有许多值得借鉴之处。因此,引进一批国外优秀教材将对我国教育事业的发展起到积极的推动作用,也是与世界接轨、建设真正的世界一流大学的必由之路。

机械工业出版社华章公司较早意识到“出版要为教育服务”。自1998年开始,我们就将工作重点放在了遴选、移译国外优秀教材上。经过多年的不懈努力,我们与Pearson, McGraw-Hill, John Wiley & Sons, Elsevier, Cambridge等世界著名出版公司建立了良好的合作关系,从他们现有的数百种教材中甄选出《Digital Design: Principles and Practices, 4E(数字设计原理与实践,原书第4版)》(John F.Wakerly著)、《Fundamentals of Digital Logic with Verilog Design(数字逻辑基础与Verilog设计)》(Stephen Brown著)、《Electromagnetic Field Theory Fundamentals, 2E(电磁场与电磁波,原书第2版)》(Bhag Singh Guru著)、《Fundamentals of Electric Circuits, 5E(电路基础,原书第5版、英文版第5版)》(Charles K. Alexander著)、《Digital Fundamentals: A Systems Approach(数字基础:系统方法)》(Thomas L. Floyd著)、《Introductory Circuit Analysis, 12E(电路分析导论,原书第12版,本科教学版)》(Robert L. Boylestad著)、《Foundations of MEMS, 2E(微机电系统基础(原书第2版))》(Chang Liu著)等大师名家的经典教材,以“国外电子电气经典教材系列”为总称出版,供读者学习、研究及珍藏。

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PREFACE

前言

E-Business, Tenth Edition provides complete coverage of the key business and technology elements of electronic commerce. The book does not assume that readers have any previous electronic commerce knowledge or experience.

In 1998, having spent several years doing electronic commerce research, consulting, and corporate training, I began developing undergraduate and graduate business school courses in electronic commerce. Although I had used a variety of books and other materials in my corporate training work, I was concerned that those materials would not work well in university courses because they were written at widely varying levels and did not have the organization and pedagogic features, such as review questions, that are so important to students.

After searching for a textbook that offered balanced coverage of both the business and technology elements of electronic commerce, I concluded that no such book existed. The first edition of *E-Business* was written to fill that void. Since that first edition, I have worked to improve the book and keep it current with the rapid changes in this dynamic field.

New to this Edition

This edition includes the usual updates to keep the content current with the rapidly occurring changes in electronic commerce. The tenth edition also includes new material on the following topics:

- Introduces the emergence of a third wave of electronic commerce (Chapter 1)
- Censorship issues in China (Chapter 1)
- Use of social media during the Arab Spring (Chapter 1)
- Mobile commerce using smartphones and tablet devices (Chapters 1, 4, 7)
- Rapid growth in online business in Asia driven by smartphone usage (Chapter 2)
- Cloud computing (Chapter 3)
- New online film and television programming distribution channels (Chapter 4)
- New strategies for selling luxury goods online (Chapter 4)
- Using social media to create viral marketing strategies (Chapter 5)
- Impact sourcing as an offshoring strategy (Chapter 6)
- Social commerce (Chapter 7)
- Security for mobile devices (Chapter 8)
- New major viruses and security threats (Chapter 8)
- Mobile payment-processing technologies (Chapter 9)



ORGANIZATION AND COVERAGE

E-Business: Tenth edition introduces readers to both the theory and practice of conducting business over the Internet and World Wide Web. The book is organized into four sections: an introduction, business strategies, technologies, and integration.

Introduction

The book's first section includes two chapters. Chapter 1, "The Second Wave of Global E-Business," defines electronic commerce and describes how companies use it to create new products and services, reduce the cost of existing business processes, and improve the efficiency and effectiveness of their operations. The concept of the second wave of electronic commerce is presented and developed in this chapter. Chapter 1 also describes the history of the Internet and the Web, explains the international environment in which electronic commerce exists, provides an overview of the economic structures in which businesses operate, and describes how electronic commerce fits into those structures. Two themes are introduced in this chapter and recur throughout later chapters: examining a firm's value chain can suggest opportunities for electronic commerce initiatives, and reductions in transaction costs are important elements of many electronic commerce initiatives.

Chapter 2, "E-Business Technology Basics," introduces the technologies used to conduct business online, including topics such as Internet infrastructure, protocols, and packet-switched networks. Chapter 2 also describes the markup languages used on the Web (HTML and XML) and discusses Internet connection options and tradeoffs, including wireless technologies.

Business Strategies for Electronic Commerce

The second section of the book includes five chapters that describe the business strategies that companies and other organizations are using to do business online. Chapter 3, "Web Server and E-Mail Technologies," describes the computers, operating systems, e-mail systems, utility programs, and Web server software that organizations use in the operation of their electronic commerce Web sites, including cloud computing technologies. The chapter describes the problem of unsolicited commercial e-mail (UCE, or spam) and outlines both technical and legal solutions to the problem.

Chapter 4, "E-Business Revenue Models," describes revenue models that companies are using on the Web and explains how some companies have changed their revenue models as the Web has matured. The chapter explains important concepts related to revenue models, such as cannibalization and coordinating multiple marketing channels. The chapter also describes how firms that understand the nature of communication on the Web can identify and reach the largest possible number of qualified customers.

Chapter 5, "Selling to Consumers Online," provides an introduction to Internet marketing and online advertising. It includes coverage of market segmentation, technology-enabled customer relationship management, rational branding, contextual advertising, localized advertising, viral marketing, and permission marketing. The chapter also explains how online businesses can share and transfer brand benefits through affiliate marketing and cooperative efforts among brand owners.

Chapter 6, "Selling to Businesses Online" explores the variety of methods that companies are using to improve their purchasing and logistics primary activities with Internet and Web technologies. Chapter 6 also provides an overview of EDI and describes how companies are outsourcing some of their business processes to less-developed countries. Chapter 6 describes how businesses are using technologies such as e-procurement,

radio-frequency identification, and reverse auctions in the practice of supply chain management online.

Chapter 7, “Virtual Communities,” explains how companies now use the Web to do things that they have never done before, such as creating social networks, engaging in mobile commerce, and operating auction sites. The chapter describes how businesses are developing social networks and using existing social networking Web sites to increase sales and do market research. The emergence of mobile commerce in meaningful volumes after many years of anticipation is outlined. The chapter also explains how companies are using Web auction sites to sell goods to their customers and generate advertising revenue.

Technologies for Electronic Commerce

The third section of the book includes two chapters that describe the technologies of electronic commerce and explains how they work.

Chapter 8, “Online Security,” discusses security threats and countermeasures that organizations can use to ensure the security of client computers (and smartphones and tablet devices), communications channels, and Web servers. The chapter emphasizes the importance of a written security policy and explains how encryption and digital certificates work. The chapter also includes an update on the most recent computer viruses, worms, and other threats.

Chapter 9, “Online Payment Systems,” presents a discussion of electronic payment systems, including mobile banking, electronic cash, electronic wallets, and the technologies used to make stored-value cards, credit cards, debit cards, and charge cards work. The chapter describes how payment systems operate, including approval of transactions and disbursements to merchants, and describes how banks are using Internet technologies to improve check clearing and payment-processing operations. The use of mobile technologies for making payments and doing online banking is outlined. The chapter also includes a discussion of the threats that phishing attacks and identity theft crimes pose for individuals and online businesses.

Integration

The fourth and final section of the book includes one chapter that integrates the business and technology strategies used in electronic commerce. Chapter 10, “Implementing E-Business Initiatives,” presents an overview of key elements that are typically included in business plans for electronic commerce implementations, such as the setting of objectives and estimating project costs and benefits. The chapter describes outsourcing strategies used in electronic commerce and covers the use of project management and project portfolio management as formal ways to plan and control tasks and resources used in electronic commerce implementations. This chapter includes a discussion of change management and outlines specific jobs available in organizations that conduct electronic commerce.

FEATURES

The tenth edition of *E-Business* includes a number of features and offers additional resources designed to help readers understand electronic commerce. These features and resources include:

- **Business Case Approach** The introduction to each chapter includes a real business case that provides a unifying theme for the chapter. The case provides a backdrop for the material described in the chapter. Each case illustrates an important topic from the chapter and demonstrates its relevance to the current practice of electronic commerce.

- **Learning From Failures** Not all electronic commerce initiatives have been successful. Each chapter in the book includes a short summary of an electronic commerce failure related to the content of that chapter. We all learn from our mistakes—this feature is designed to help readers understand the missteps of electronic commerce pioneers who learned their lessons the hard way.
- **Summaries** Each chapter concludes with a Summary that concisely recaps the most important concepts in the chapter.
- **Web Links** The Web Links are a set of Web pages maintained by the publisher for readers of this book. The Web Links complement the book and link to Web sites referred to in the book and to other online resources that further illustrate the concepts presented. The Web is constantly changing, and the Web Links are continually monitored and updated for those changes so that its links continue to lead to useful Web resources for each chapter. You can find the Web Links for this book by visiting the Companion Web site at www.cengagebrain.com and searching for the ISBN on the back of your book.
- **Web Links References in Text** Throughout each chapter, there are Web Links references that indicate the name of a link included in the Web Links. Text set in bold, green, sans-serif letters (**Metabot Pro**) indicates a like-named link in the Web Links. The links are organized under chapter and subchapter headings that correspond to those in the book. The Web Links also contains many supplemental links to help students explore beyond the book's content.
- **Review Questions and Exercises** Each chapter concludes with meaningful review materials including both conceptual discussion questions and hands-on exercises. The review questions are ideal for use as the basis for class discussions or as written homework assignments. The exercises give students hands-on experiences that yield computer output or a written report.
- **Cases** Each chapter concludes with two comprehensive cases. One case uses a fictitious setting to illustrate key learning objectives from that chapter. The other case gives students an opportunity to apply what they have learned from the chapter to an actual situation that a real company or organization has faced. The cases offer students a rich environment in which they can apply what they have learned and provide motivation for doing further research on the topics.
- **For Further Study and Research** A comprehensive list of the resources that were consulted during the writing of each chapter can be found at the end of the textbook. These references to publications in academic journals, books, and the IT industry and business press provide a sound starting point for readers who want to learn more about the topics contained in the chapter.
- **Key Terms and Glossary** Terms within each chapter that may be new to the student or have specific subject-related meaning are highlighted by boldface type. The end of each chapter includes a list of the chapter's key terms. All of the book's key terms are compiled, along with definitions, in a Glossary at the end of the book.

TEACHING TOOLS

When this book is used in an academic setting, instructors may obtain the following teaching tools from Course Technology:

- **Instructor's Manual** The Instructor's Manual has been carefully prepared and tested to ensure its accuracy and dependability. The Instructor's Manual is available through the Course Technology Instructor Downloads.
- **ExamView®** This textbook is accompanied by ExamView, a powerful testing software package that allows instructors to create and administer printed, computer (LAN-based), and Internet exams. ExamView includes hundreds of questions that correspond to the topics covered in this text, enabling students to generate detailed study guides that include page references for further review. The computer-based and Internet testing components allow students to take exams at their computers and also save the instructor time by grading each exam automatically.
- **PowerPoint Presentations** Microsoft PowerPoint slides are included for each chapter as a teaching aid for classroom presentations, to make available to students on a network for chapter review, or to be printed for classroom distribution. Instructors can add their own slides for additional topics they introduce to the class.

ACKNOWLEDGMENTS

I owe a great debt of gratitude to my good friends at Cengage who made this book possible. Cengage remains the best publisher with which I have ever worked. Everyone at Cengage put forth tremendous effort to publish this edition on a very tight schedule. My heartfelt thanks go to Charles McCormick, Jr., Senior Acquisitions Editor; Kate Mason and Aimee Poirier, who shared the job of Product Manager; and Divya Divakaran, Production Project Manager, for their tireless work and dedication. I am deeply indebted to Amanda Brodtkin, Development Editor extraordinaire, for her outstanding contributions to all 10 editions of this book. Amanda performed the magic of turning my manuscript drafts into a high-quality textbook and was always ready with encouragement and fresh ideas when I was running low on them. Many of the best elements of this book resulted from Amanda's ideas and inspirations. In particular, I want to thank Amanda for contributing the Dutch auction example in Chapter 7 and the ideas for the cases in Chapter 3.

I want to thank the following reviewers for their insightful comments and suggestions on previous editions:

Paul Ambrose	University of Wisconsin, Milwaukee
Kirk Arnett	Mississippi State University
Tina Ashford	Macon State College
Rafael Azuaje	Sul Ross State University
Robert Chi	California State University-Long Beach
Chet Cunningham	Madisonville Community College
Roland Eichelberger	Baylor University
Mary Garrett	Michigan Virtual High School
Barbara Grabowski	Benedictine University
Milena Head	McMaster University
Perry M. Hidalgo	Gwinnett Technical Institute
Brent Hussin	University of Wisconsin, Green Bay
Cheri L. Kase	Legg Mason Corporate Technology
Joanne Kuzma	St. Petersburg College
Rick Lindgren	Graceland University
Victor Lipe	Trident Technical College
William Lisenby	Alamo Community College

Diane Lockwood	Albers School of Business and Economics, Seattle University
Jane Mackay	Texas Christian University
Michael P. Martel	Culverhouse School of Accountancy, University of Alabama
William E. McTammany	Florida State College at Jacksonville
Leslie Moore	Jackson State Community College
Martha Myers	Kennesaw State University
Pete Partin	Forethought Financial Services
Andy Pickering	University of Maryland University College
David Reavis	Texas A&M University
George Reynolds	Strayer University
Barbara Warner	University of South Florida
Gene Yelle	Megacom Services

Special thanks go to reviewer A. Lee Gilbert of Nanyang Technological University in Singapore, who provided extremely detailed comments and many useful suggestions for improving Chapter 10. My thanks also go to the many professors who have used the previous editions in their classes and who have sent me suggestions for improving the text. In particular, I want to acknowledge the detailed recommendations made by David Bell of Pacific Union College regarding the coverage of IP addresses in Chapter 2.

The University of San Diego provided research funding that allowed me to work on the first edition of this book and gave me fellow faculty members who were always happy to discuss and critically evaluate ideas for the book. Of these faculty members, my thanks go first to Jim Perry for his contributions as co-author on the first two editions of this book. Tom Buckles, now a professor of marketing at Biola University, provided many useful suggestions, pointed out a number of valuable research resources, and was willing to sit and discuss ideas for this book long after everyone else had left the building. Rahul Singh, now teaching at the University of North Carolina-Greensboro, provided suggestions regarding the book's coverage of electronic commerce infrastructure. Carl Rebman made recommendations on a number of networking, telecommunications, and security topics. The University of San Diego School of Business Administration also provided the research assistance of many graduate students who helped me with work on the first seven editions of this book.

Many of my graduate students provided helpful suggestions and ideas. My special thanks go to two of those students, Dima Ghawi and Dan Gordon. Dima shared her significant background research on reverse auctions and helped me develop many of the ideas presented in Chapters 6 and 7. Dan gave me the benefit of his experiences as manager of global EDI operations for a major international firm and provided an in-depth review of Chapter 6. I am also grateful to Robin Lloyd for her help with the Lonely Planet case (in Chapter 4) and to Zu-yo Wang for his help with the Alibaba.com case (Chapter 7). Other students who provided valuable suggestions include Maximiliano Altieri, Adrian Boyce, Karl Flaig, Kathy Glaser, Emilie Johnson Hersch, Chad McManamy, Dan Mulligan, Firat Ozkan, Suzanne Phillips, Susan Soelaiman, Carolyn Sturz, and Leila Worthy.

Finally, I want to express my deep appreciation for the support and encouragement of my wife, Cathy Cosby. Without her support and patience, writing this book would not have been possible.

DEDICATION

To the memory of my father, Anthony J. Schneider.

ABOUT THE AUTHOR

Gary Schneider is the William S. Perloth Professor of Accounting at Quinnipiac University. His prior teaching appointments include the University of San Diego, the University of Tennessee, and Xavier University. He has won a number of teaching and research awards. He served as academic director of the University of San Diego's graduate programs in electronic commerce and information systems. Gary has published more than 50 books and 100 research papers on a variety of accounting, information systems, and management topics. His books have been translated into Chinese, French, Italian, Korean, and Spanish. Gary's research has been funded by the Irvine Foundation and the U.S. Office of Naval Research. His work has appeared in the *Journal of Information Systems*, *Interfaces*, *Issues in Accounting Education*, and the *Information Systems Audit & Control Journal*. He has served as editor of the *Business Studies Journal* and the *Accounting Systems and Technology Reporter*, as accounting discipline editor of *Advances in Accounting, Finance and Economics*, as associate editor of the *Journal of Global Information Management*, and on the editorial boards of the *Journal of Information Systems*, the *Journal of Electronic Commerce in Organizations*, the *Journal of Database Management*, and the *Information Systems Audit & Control Journal*. Gary has lectured on electronic commerce topics at universities and businesses in the United States, Europe, South America, and Asia. He has provided consulting and training services to a number of major clients, including Gartner, Gateway, Honeywell, the National Science Foundation, Qualcomm, and the U.S. Department of Commerce. In 1999, he was named a Fellow of the Gartner Institute. In 2003, he was awarded the Clarence L. Steber professorship by the University of San Diego. Gary is a licensed CPA in Ohio, where he practiced public accounting for 14 years. He holds a Ph.D. in accounting information systems from the University of Tennessee, an M.B.A. in accounting from Xavier University, and a B.A. in economics from the University of Cincinnati.

TABLE OF CONTENTS

Preface	iv
Part 1: Introduction	
Chapter 1 The Second Wave of Global E-Business	3
Electronic Commerce: Into the Third Wave	5
Electronic Commerce and Electronic Business	5
Categories of Electronic Commerce	6
The Development and Growth of Electronic Commerce	8
The Dot-Com Boom, Bust, and Rebirth	10
The Second Wave of Electronic Commerce	11
The Third Wave Begins	14
Business Models, Revenue Models, and Business Processes	15
Focus on Specific Business Processes	16
Role of Merchandising	16
Product/Process Suitability to Electronic Commerce	17
Electronic Commerce: Opportunities, Cautions, and Concerns	18
Opportunities for Electronic Commerce	18
Electronic Commerce: Cautions and Concerns	20
Economic Forces and Electronic Commerce	22
Transaction Costs	23
Markets and Hierarchies	24
Using Electronic Commerce to Reduce Transaction Costs	26
Network Economic Structures	27
Network Effects	28
Identifying Electronic Commerce Opportunities	29
Strategic Business Unit Value Chains	29
Industry Value Chains	31
SWOT Analysis: Evaluating Business Unit Opportunities	33
International Nature of Electronic Commerce	34
Trust Issues on the Web	35
Language Issues	36
Cultural Issues	37
Culture and Government	38
Infrastructure Issues	39
Summary	42
Key Terms	42
Review Questions	43
Exercises	44
Cases	44

Chapter 2 E-Business Technology Basics	49
The Internet and the World Wide Web	51
Origins of the Internet	51
New Uses for the Internet	52
Commercial Use of the Internet	53
Growth of the Internet	53
Packet-Switched Networks	54
Routing Packets	55
Public and Private Networks	56
Virtual Private Networks (VPNs)	57
Intranets and Extranets	57
Internet Protocols	58
TCP/IP	58
IP Addressing	59
Electronic Mail Protocols	60
Web Page Request and Delivery Protocols	61
Emergence of the World Wide Web	62
The Development of Hypertext	62
Graphical Interfaces for Hypertext	63
The World Wide Web	63
The Deep Web	64
Domain Names	65
Markup Languages and the Web	66
Markup Languages	68
Hypertext Markup Language	68
Extensible Markup Language (XML)	74
HTML and XML Editors	79
Internet Connection Options	80
Connectivity Overview	80
Voice-Grade Telephone Connections	81
Broadband Connections	81
Leased-Line Connections	83
Wireless Connections	83
Internet2 and the Semantic Web	87
Summary	89
Key Terms	89
Review Questions	91
Exercises	92
Cases	94

Part 2: Business Strategies for Electronic Commerce

Chapter 3 Web Server and E-Mail Technologies	99
Web Server Basics	101
Dynamic Content Generation	102
Multiple Meanings of "Server"	103
Web Client/Server Architectures	104
Software for Web Servers	106
Operating Systems for Web Servers	106
Web Server Software	107
Finding Web Server Software Information	108

Electronic Mail (E-Mail)	108
E-Mail Benefits	109
E-Mail Drawbacks	109
Spam	109
Solutions to the Spam Problem	110
Web Site Utility Programs	118
Finger and Ping Utilities	118
Tracert and Other Route-Tracing Programs	118
Telnet and FTP Utilities	119
Indexing and Searching Utility Programs	120
Data Analysis Software	120
Link-Checking Utilities	120
Remote Server Administration	121
Web Server Hardware	121
Server Computers	121
Web Servers and Green Computing	122
Web Server Performance Evaluation	123
Web Server Hardware Architectures	124
Summary	128
Key Terms	128
Review Questions	129
Exercises	130
Cases	130
Chapter 4 E-Business Revenue Models	133
Revenue Models for Online Business	134
Web Catalog Revenue Models	135
Fee-for-Content Revenue Models	140
Advertising as a Revenue Model Element	142
Fee-for-Transaction Revenue Models	147
Fee-for-Service Revenue Models	153
Free for Many, Fee for a Few	154
Changing Strategies: Revenue Models in Transition	155
Subscription to Advertising-Supported Model	155
Advertising-Supported to Advertising-Subscription Mixed Model	155
Advertising-Supported to Fee-for-Services Model	156
Advertising-Supported to Subscription Model	156
Multiple Changes to Revenue Models	156
Revenue Strategy Issues for Online Businesses	158
Channel Conflict and Cannibalization	158
Strategic Alliances	159
Luxury Goods Strategies	160
Overstock Sales Strategies	160
Creating an Effective Business Presence Online	160
Identifying Web Presence Goals	161
Web Site Usability	164
How the Web Is Different	164
Meeting the Needs of Web Site Visitors	164
Trust and Loyalty	167
Usability Testing	168
Customer-Centric Web Site Design	168

Using the Web to Connect with Customers	170
The Nature of Communication on the Web	170
Summary	173
Key Terms	173
Review Questions	174
Exercises	174
Cases	175
Chapter 5 Selling to Consumers Online	179
Web Marketing Strategies	181
The Four Ps of Marketing	181
Product-Based Marketing Strategies	182
Customer-Based Marketing Strategies	183
Communicating with Different Market Segments	184
Trust, Complexity, and Media Choice	184
Market Segmentation	186
Market Segmentation on the Web	188
Offering Customers a Choice on the Web	188
Beyond Market Segmentation: Customer Behavior and Relationship Intensity	189
Segmentation Using Customer Behavior	189
Customer Relationship Intensity and Life-Cycle Segmentation	191
Acquisition, Conversion, and Retention of Customers	193
Customer Acquisition, Conversion, and Retention: The Funnel Model	195
Advertising on the Web	196
Banner Ads	197
Text Ads	199
Other Web Ad Formats	200
Mobile Device Advertising	201
Site Sponsorships	201
Online Advertising Cost and Effectiveness	202
Effectiveness of Online Advertising	203
E-Mail Marketing	204
Permission Marketing	205
Combining Content and Advertising	206
Outsourcing E-Mail Processing	206
Technology-Enabled Customer Relationship Management	206
CRM as a Source of Value in the Marketplace	207
Creating and Maintaining Brands on the Web	209
Elements of Branding	209
Emotional Branding vs. Rational Branding	210
Affiliate Marketing Strategies	211
Viral Marketing Strategies and Social Media	212
Search Engine Positioning and Domain Names	214
Search Engines and Web Directories	214
Paid Search Engine Inclusion and Placement	215
Web Site Naming Issues	217
Summary	220
Key Terms	220
Review Questions	222
Exercises	222
Cases	223

Chapter 6	<i>Selling to Businesses Online</i>	227
Purchasing, Logistics, and Business Support Processes		230
Purchasing Activities		230
Direct vs. Indirect Materials Purchasing		233
Logistics Activities		234
Business Process Support Activities		235
E-Government		237
Network Model of Economic Organization in Purchasing: Supply Webs		239
Electronic Data Interchange		239
Early Business Information Interchange Efforts		240
Emergence of Broader Standards: The Birth of EDI		241
How EDI Works		242
Value-Added Networks		245
EDI Payments		247
Supply Chain Management Using Internet Technologies		248
Value Creation in the Supply Chain		248
Increasing Supply Chain Efficiencies		250
Materials-Tracking Technologies		251
Creating an Ultimate Consumer Orientation in the Supply Chain		253
Building and Maintaining Trust in the Supply Chain		254
Electronic Marketplaces and Portals		254
Independent Industry Marketplaces		254
Private Stores and Customer Portals		256
Private Company Marketplaces		256
Industry Consortia-Sponsored Marketplaces		257
Summary		259
Key Terms		259
Review Questions		260
Exercises		260
Cases		261
Chapter 7	<i>Virtual Communities</i>	265
From Virtual Communities to Social Networks		266
Virtual Communities		267
Early Web Communities		267
Social Networking Emerges		268
Revenue Models for Social Networking Sites		271
Mobile Commerce		274
Mobile Operating Systems		274
Mobile Apps		276
Tablet Devices		278
Mobile Payment Apps		278
Online Auctions		278
Auction Basics		279
Online Auctions and Related Businesses		282
Auction-Related Services		290
Summary		292
Key Terms		292
Review Questions		293
Exercises		293
Cases		294

Part 3: Technologies for Electronic Commerce

Chapter 8	Online Security	299
Online Security Issues Overview		300
Origins of Security on Interconnected Computer Systems		301
Computer Security and Risk Management		301
Elements of Computer Security		302
Establishing a Security Policy		303
Security for Client Computers		305
Cookies and Web Bugs		305
Active Content		307
Java Applets		308
JavaScript		308
ActiveX Controls		309
Graphics and Plug-Ins		310
Viruses, Worms, and Antivirus Software		310
Digital Certificates		316
Steganography		319
Physical Security for Clients		320
Client Security for Mobile Devices		320
Communication Channel Security		321
Secrecy Threats		321
Integrity Threats		323
Necessity Threats		323
Threats to the Physical Security of Internet Communications Channels		324
Threats to Wireless Networks		324
Encryption Solutions		325
Using a Hash Function to Create a Message Digest		332
Converting a Message Digest into a Digital Signature		332
Security for Server Computers		333
Web Server Threats		333
Database Threats		335
Other Programming Threats		335
Threats to the Physical Security of Web Servers		336
Access Control and Authentication		337
Firewalls		339
Organizations that Promote Computer Security		341
CERT		341
Other Organizations		341
Computer Forensics and Ethical Hacking		342
Summary		343
Key Terms		343
Review Questions		345
Exercises		345
Cases		346
Chapter 9	Online Payment Systems	349
Online Payment Basics		351
Micropayments and Small Payments		351
Online Payment Methods		352
Payment Cards		353
Advantages and Disadvantages of Payment Cards		354