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电子商务

（美） Gary P. Schneider 著
奎尼皮亚克大学

9th edition

（英文精编版·第9版）

E-Business

Gary P. Schneider

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E-Business
China Student Edition (Ninth Edition)

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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，计算机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，不仅擘划了研究的范畴，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，我国的计算机产业发展迅猛，对专业人才的需求日益迫切。这对计算机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计算机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，引进一批国外优秀计算机教材将对我国计算机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，Elsevier，MIT，John Wiley & Sons，Cengage 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 Andrew S. Tanenbaum，Bjarne Stroustrup，Brain W. Kernighan，Dennis Ritchie，Jim Gray，Afred V. Aho，John E. Hopcroft，Jeffrey D. Ullman，Abraham Silberschatz，William Stallings，Donald E. Knuth，John L. Hennessy，Larry L. Peterson 等大师名家的一批经典作品，以"计算机科学丛书"为总称出版，供读者学习、研究及珍藏。大理石纹理的封面，也正体现了这套丛书的品位和格调。

"计算机科学丛书"的出版工作得到了国内外学者的鼎力襄助，国内的专家不仅提供了中肯的选题指导，还不辞劳苦地担任了翻译和审校的工作；而原书的作者也相当关注其作品在中国的传播，有的还专程为其书的中译本作序。迄今，"计算机科学丛书"已经出版了近两百个品种，这些书籍在读者中树立了良好的口碑，并被许多高校采用为正式教材和参考书籍。其影印版"经典原版书库"作为姊妹篇也被越来越多实施双语教学的学校所采用。

权威的作者、经典的教材、一流的译者、严格的审校、精细的编辑，这些因素使我们的图书有了质量的保证。随着计算机科学与技术专业学科建设的不断完善和教材改革的逐渐深化，教育界对国外计算机教材的需求和应用都将步入一个新的阶段，我们的目标是尽善尽美，而反馈的意见正是我们达到这一终极目标的重要帮助。华章公司欢迎老师和读者对我们的工作提出建议或给予指正，我们的联系方法如下：

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PREFACE

E-Business, Ninth 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 ninth edition also includes new material on the following topics:

- Expanded discussion of first-mover advantage (Chapter 1)
- Multiple marketing channels (Chapter 3)
- Revenue models for specialized information Web sites (Chapter 3)
- The future of electronic books and newspaper Web sites (Chapter 3)
- Free for many, fee for a few revenue models (Chapter 3)
- Online delivery of television shows and movies (Chapter 3)
- E-procurement software for smaller companies (Chapter 5)
- Social networking business opportunities (Chapter 6)
- Growth of mobile commerce applications on smart phones (Chapters 3, 6)
- Re-emergence of group shopping Web sites (Chapter 6)
- Growing use of Web services and other Web 2.0 technologies in electronic commerce (Chapters 6, 7)
- Expanded coverage of database management software (Chapter 7)
- Specialized customer relationship management software (Chapter 7)
- New major viruses and security threats (Chapter 8)
- Secure Sockets Layer-Extended Validation digital certificates (Chapter 8)
- Mobile banking and mobile payment services (Chapter 9)
- Use of credit card verification numbers in electronic commerce (Chapter 9)
- Expanded coverage of jobs in electronic commerce (Chapter 10)

ORGANIZATION AND COVERAGE

E-Business: Ninth 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 four chapters that describe the business strategies that companies and other organizations are using to do business online.

Chapter 3, "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 4, "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 5, "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 5 also provides an overview of EDI and explores how the Internet provides an inexpensive EDI communications channel that allows smaller businesses to reap EDI's benefits. Chapter 5 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 6, "Virtual Communities," outlines 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 three chapters that describe the technologies of electronic commerce and explains how they work.

Chapter 7, "Web Hosting and E-Business Software," describes the basic functions that all electronic commerce Web sites must accomplish and explains the various software options used to perform those functions by companies of various sizes. This chapter includes an overview of Web services (Web 2 0 technologies), database management, shopping cart, and other types of software used in electronic commerce. The chapter also includes a discussion of Web hosting options for online businesses of various sizes

Chapter 8, "Online Security," discusses security threats and countermeasures that organizations can use to ensure the security of client computers, communications channels, and Web servers. The chapter emphasizes the importance of a written security policy and explains how encryption and digital certificates work. The role of industry organizations in promoting computer, network, and Internet security is also outlined

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 small payments today and in the future 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 ninth 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.

- **Online Companion** The Online Companion is a set of Web pages maintained by the publisher for readers of this book The Online Companion complements the book and contains links 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 Online Companion is 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 Online Companion for this book by visiting Course Technology's Web site at *www.cengage.com/international*

- **Online Companion References in Text** Throughout each chapter, there are Online Companion References that indicate the name of a link included in the Online Companion. Text set in bold, green, sans-serif letters (**Metabot Pro**) indicates a like-named link in the Online Companion. The links in the Online Companion are organized under chapter and subchapter headings that correspond to those in the book The Online Companion 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 The end of the book contains a comprehensive list of the resources that were consulted during the writing of the chapter. 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 at www cengage com/international

- **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. (Call your customer service representative to obtain your username and password)
- **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.

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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. Perlroth 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 several teaching awards and has 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.

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