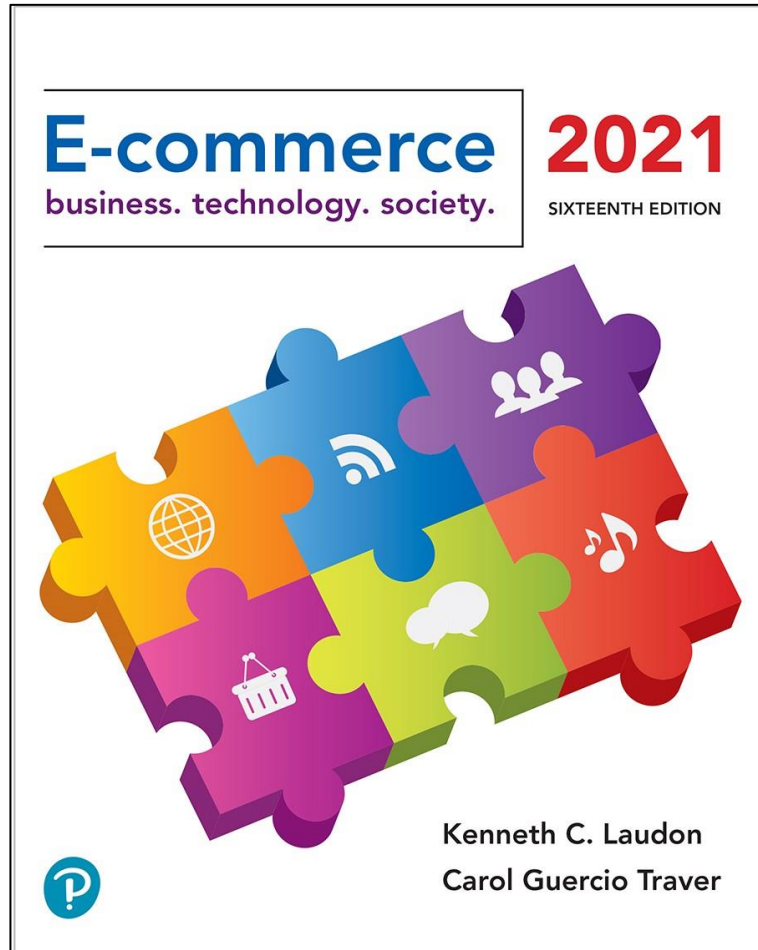


E-commerce 2021: Business. Technology. Society.

Sixteenth Edition



Chapter 1

The Revolution Is Just
Beginning

Learning Objectives

- 1.1** Understand why it is important to study e-commerce.
- 1.2** Define e-commerce, understand how e-commerce differs from e-business, identify the primary technological building blocks underlying e-commerce, and recognize major current themes in e-commerce.
- 1.3** Identify and describe the unique features of e-commerce technology and discuss their business significance.
- 1.4** Describe the major types of e-commerce.
- 1.5** Understand the evolution of e-commerce from its early years to today.
- 1.6** Describe the major themes underlying the study of e-commerce.
- 1.7** Identify the major academic disciplines contributing to e-commerce.

Uber: The New Face of E-commerce?

- Class Discussion
 - Have you used Uber or any other on-demand service companies?
 - What is the appeal of these companies for users and providers?
 - Are there any negative consequences to the increased use of on-demand services like Uber and Airbnb?
 - How has the Covid-19 pandemic impacted Uber and other on-demand services?

The First Thirty Seconds

- First two decades of e-commerce
 - Just the beginning
 - Rapid growth and change
- Technologies evolve at exponential rates
 - Disruptive business change
 - New opportunities
- Why study e-commerce
 - Understand opportunities and risks
 - Analyze e-commerce ideas, models, issues

Introduction to E-commerce

- Use of Internet to transact business
 - Includes Web, mobile browsers and apps
- More formally:
 - Digitally enabled commercial transactions between and among organizations and individuals

The Difference Between E-commerce and E-business

- E-business:
 - Digital enabling of transactions and processes within a firm, involving information systems under firm's control
 - Does not include commercial transactions involving an exchange of value across organizational boundaries

Technological Building Blocks Underlying E-commerce

- Internet
- World Wide Web
 - HTML
 - Deep Web vs “surface” Web
- Mobile platform
 - Mobile apps

Insight on Technology: Will Apps Make the Web Irrelevant?

- Class Discussion
 - What are the advantages and disadvantages of apps, compared with websites, for mobile users?
 - What are the benefits of apps for content owners and creators?
 - What are progressive web apps (PWAs) and how do they differ from native apps?
 - Will apps eventually make the Web irrelevant? Why or why not?

Major Trends in E-commerce

- Business trends include:
 - Covid-19 pandemic fuels surge in retail e-commerce, m-commerce, and certain on-demand services
- Technology trends include:
 - Mobile platform and cloud computing
 - Big data and Internet of Things
- Societal trends include:
 - Increased concern about impact of social networks
 - Concerns about increasing market dominance of big technology firms

Unique Features of E-commerce Technology (1 of 2)

1. Ubiquity
2. Global reach
3. Universal standards
4. Information richness

Unique Features of E-commerce Technology (2 of 2)

- 5. Interactivity
- 6. Information density
- 7. Personalization/customization
- 8. Social technology

Types of E-commerce

- Business-to-Consumer (B2C)
- Business-to-Business (B2B)
- Consumer-to-Consumer (C2C)
- Mobile e-commerce (M-commerce)
- Social e-commerce
- Local e-commerce

Figure 1.5 The Growth of B2C E-commerce in the United States

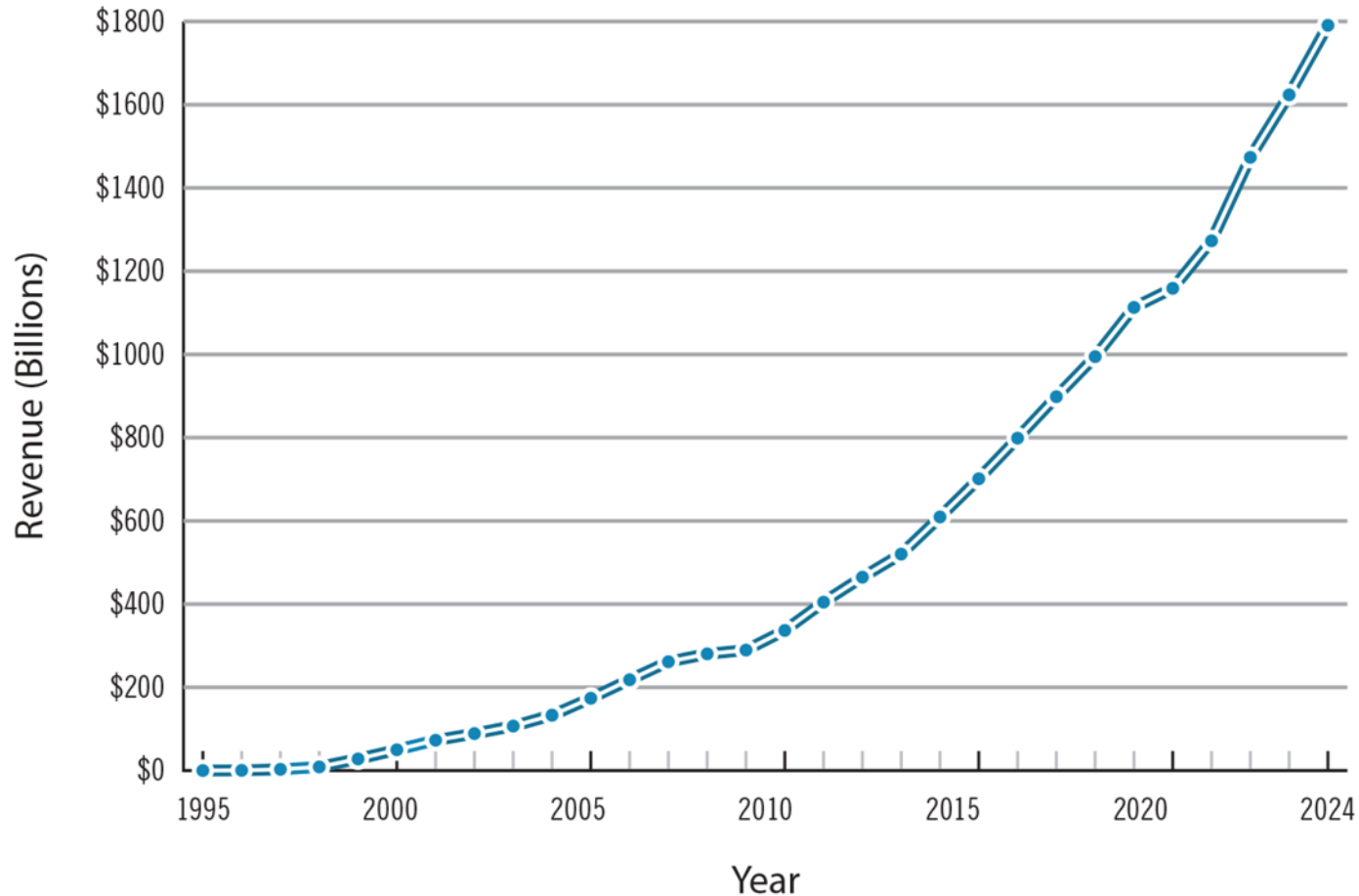


Figure 1.7 The Growth of B2B E-commerce in the United States

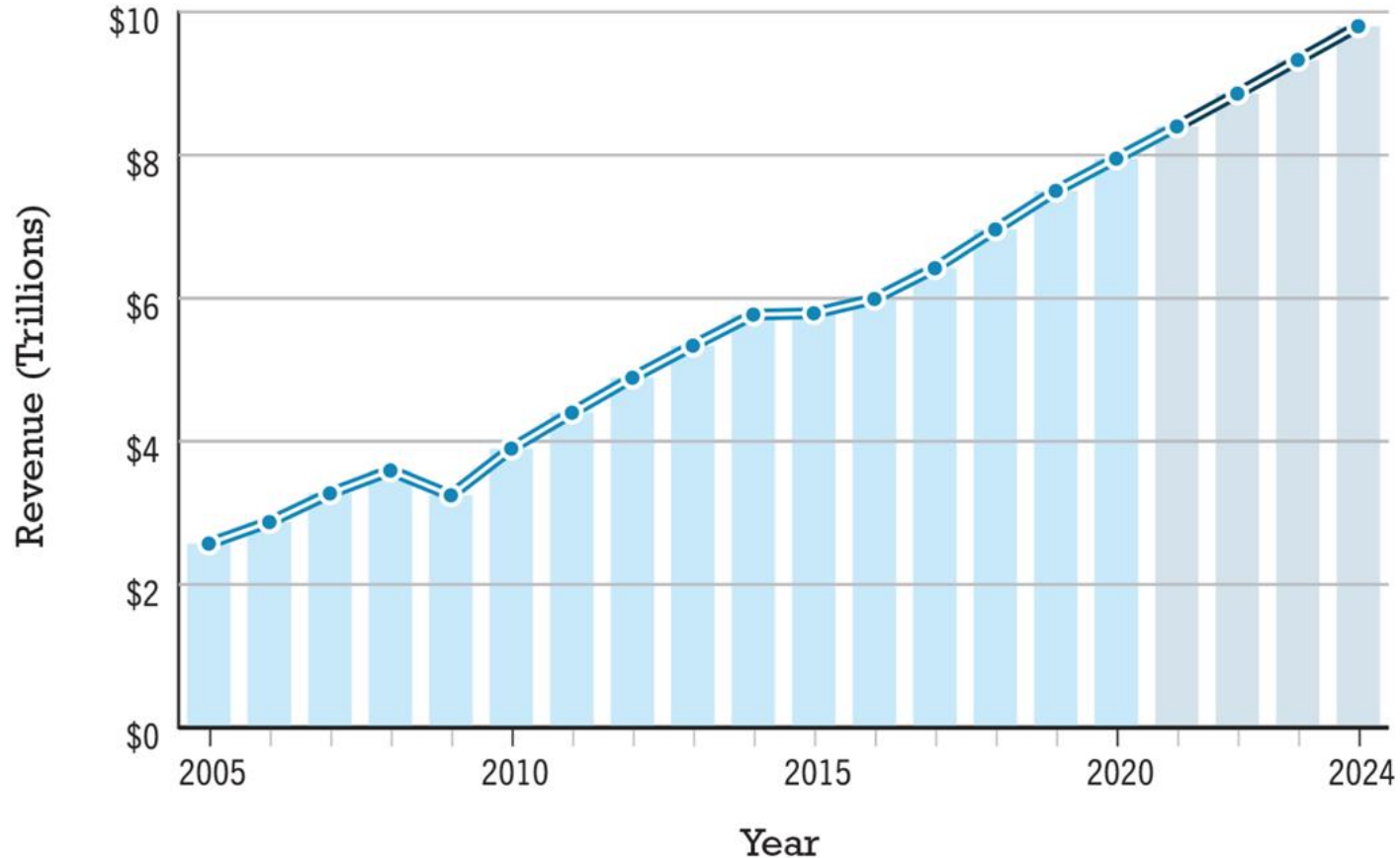
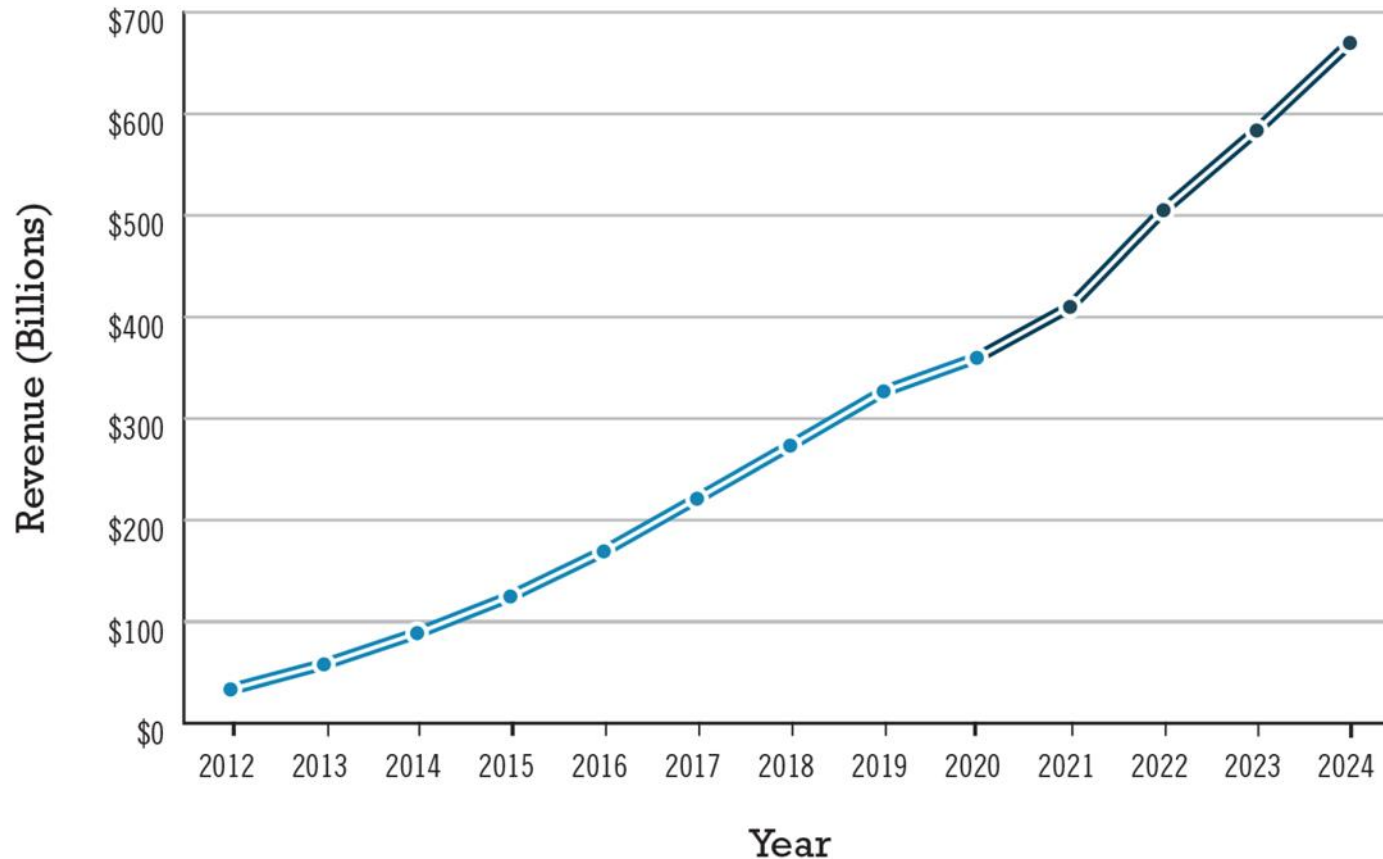


Figure 1.8 The Growth of M-commerce in the United States



E-commerce: A Brief History (1 of 4)

- Precursors
 - Baxter Healthcare modem-based system (1970s)
 - Order entry systems (1980s)
 - Electronic Data Interchange (EDI) standards (1980s)
 - French Minitel (1981)

E-commerce: A Brief History (2 of 4)

- 1995–2000: Invention
 - Sale of simple retail goods
 - Limited bandwidth and media
 - Euphoric visions of
 - Friction-free commerce
 - First-mover advantages
 - Dot-com crash of 2000

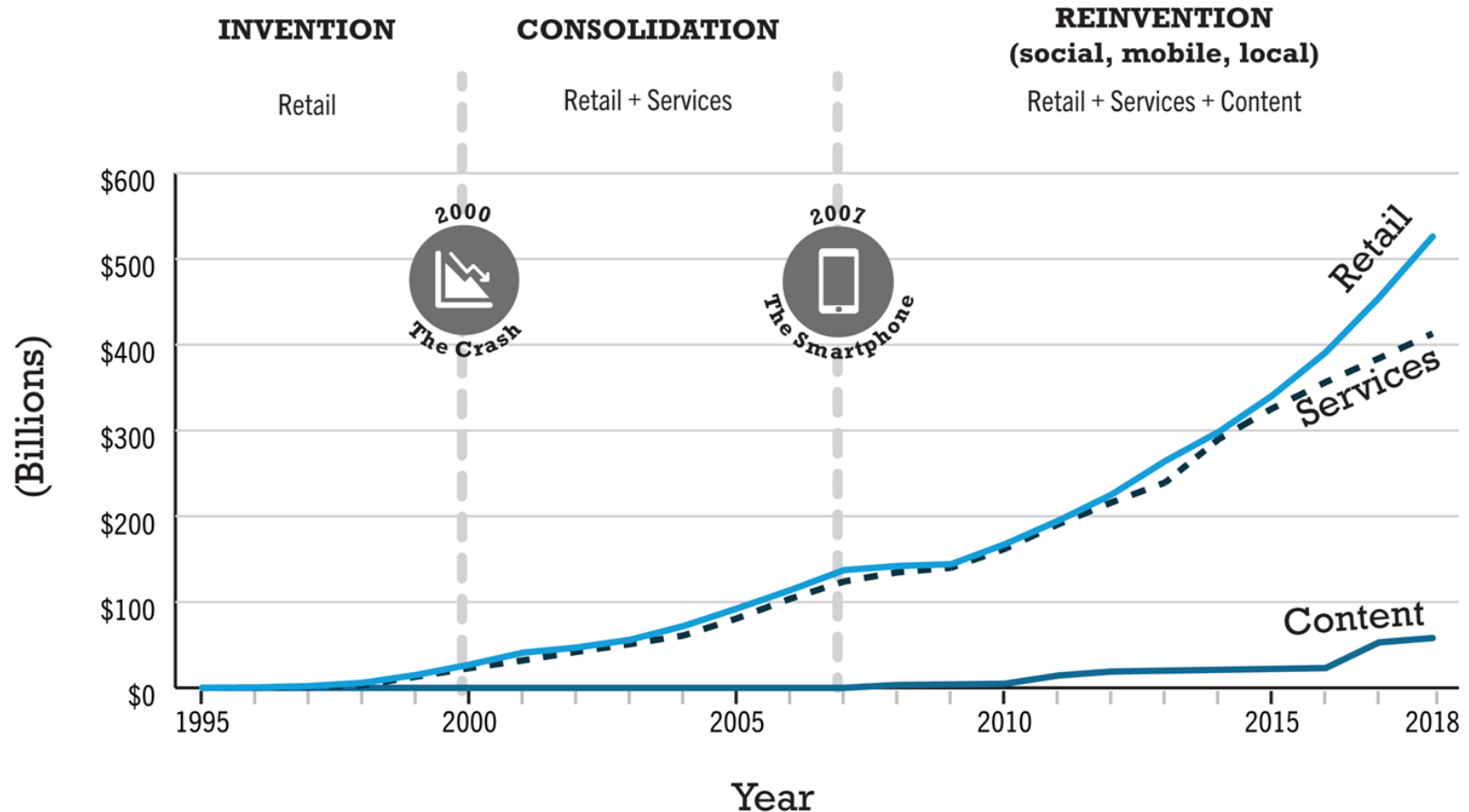
E-commerce: A Brief History (3 of 4)

- 2001–2006: Consolidation
 - Emphasis on business-driven approach
 - Traditional large firms expand presence
 - Start-up financing shrinks
 - More complex products and services sold
 - Growth of search engine advertising
 - Business web presences expand

E-commerce: A Brief History (4 of 4)

- 2007–Present: Reinvention
 - Rapid growth of:
 - Web 2.0, including online social networks
 - Mobile platform
 - Local commerce
 - On-demand service economy
 - Entertainment content develops as source of revenues
 - Transformation of marketing

Figure 1.10 Periods in the Development of E-commerce



Insight on Business: Y Combinator's Startup Boot Camp

- Class Discussion
 - Why do you think investors today are still interested in investing in startups?
 - What are the benefits of investing in a company that is a graduate of a Y Combinator boot camp?
 - Is an incubator the best solution for startups to find funding? Why or why not?

Assessing E-commerce (1 of 2)

- Stunning technological success
- Early years a mixed business success
 - Few early dot-coms have survived
 - Online sales growing rapidly
- Many early visions not fulfilled
 - Price dispersion
 - Information asymmetry
 - New intermediaries

Assessing E-commerce (2 of 2)

- Other surprises
 - Fast-follower advantages
 - Start-up costs
 - Impact of mobile platform
 - Emergence of on-demand e-commerce

Understanding E-commerce: Organizing Themes

- Technology:
 - Development and mastery of digital computing and communications technology
- Business:
 - New technologies present businesses with new ways of organizing production and transacting business
- Society:
 - Intellectual property, individual privacy, public welfare policy

Figure 1.11 The Internet and the Evolution of Corporate Computing

Computer Technology

Mainframe Computers
1950 – 1975



Minicomputers
1970 – 1980



Personal Computers
1980 – Present



Local Area Networks
Client/Server Computing
1980 – Present



Enterprise-wide
Computing
1990 – Present



Internet and Web
Mobile Platform
Cloud Computing
1995 – Present



Business Application



Transaction automation
Payroll
Accounts receivable



Business function automation
Marketing
Human resources
Design



Desktop automation
Word processing
Spreadsheets
Databases



Workgroup automation
Document sharing
Project management
Messaging, e-mail



Enterprise-wide automation
Resource planning systems
Integrated finance-manufacturing
systems
Human resource planning



Industrial system automation
Supply chain management
Customer relationship
management
Channel management systems
Web and cloud services

Insight on Society: Facebook and the Age of Privacy

- Class discussion:
 - Why are social networks interested in collecting user information?
 - What types of privacy invasion are described in the case? Which is the most privacy-invading, and why?
 - Was the FTC's \$5 billion fine and its placement of new restrictions on Facebook's business operations sufficient in light of Facebook's history with respect to privacy violations?
 - How do you protect your privacy online?

Academic Disciplines Concerned with Technology

- Technical
 - Computer science, management science, information systems
- Behavioral
 - Information systems research, economics, marketing, management, finance/accounting, sociology

Careers in E-commerce

- Position: Category specialist in E-commerce Retail Program
- Qualification/Skills
- Preparing for the Interview
- Possible Interview Questions

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