## Contents

**Part 1 Introduction to E-Commerce and E-Marketplaces** 45

### CHAPTER 1 OVERVIEW OF ELECTRONIC COMMERCE 45

**Dell—Using E-Commerce for Success** 46

1.1 **ELECTRONIC COMMERCE: DEFINITIONS AND CONCEPTS** 48  
- Defining Electronic Commerce 48  
- Defining E-Business 48  
- Pure Versus Partial EC 49  
- Internet Versus Non-Internet EC 50  
- Electronic Markets and Interorganizational and Intraorganizational Information Systems 50

1.2 **THE EC FRAMEWORK, CLASSIFICATION, AND CONTENT** 50  
- An EC Framework 51  
- Classification of EC by the Nature of the Transactions or Interactions 52

**Case 1.1 EC Application: Buy Chocolate Online?** 54  
- Try Godiva.com 54  
- A Brief History of EC 55

**Case 1.2 EC Application: Boeing Changes the Nature of Its Business with Global Collaboration** 56  
- The Interdisciplinary Nature of EC 57  
- The Future of EC 58  
- Web 2.0 and Web 3.0 58

1.3 **THE DIGITAL REVOLUTION DRIVES EC** 60  
- The Digital Revolution and Economy 60

<table>
<thead>
<tr>
<th>Insights and Additions 1.1: Interesting and Unique Applications of EC</th>
</tr>
</thead>
</table>
| 1.4 **THE BUSINESS ENVIRONMENT DRIVES EC** 62  
- The Business Environment 62 |
| 1.5 **EC BUSINESS MODELS** 64  
- The Structure and Properties of Business Models 65  
- Typical EC Business Models 68  
- Special EC Business Model: Second Life 70 |

<table>
<thead>
<tr>
<th>Case 1.3 EC Application: Second Life 71</th>
</tr>
</thead>
</table>
| 1.6 **BENEFITS AND LIMITATIONS OF EC** 72  
- The Benefits of EC 72 |

<table>
<thead>
<tr>
<th>Insights and Additions 1.2: Enhancing Homeland Security Electronically 73</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The Limitations and Barriers of EC 73</td>
</tr>
</tbody>
</table>
1.7 SOCIAL AND BUSINESS NETWORKS ....... 75
Social Networks ....... 75

Case 1.4 **EC Application:** Myspace: The World's Most Popular Social Networking Web Site ....... 75

1.8 THE DIGITAL ENTERPRISE ....... 77
The Digital Enterprise ....... 78

1.9 OVERVIEW OF THIS BOOK ....... 79
Part 1: Introduction to E-Commerce and E-Marketplaces ....... 79
Part 2: Internet Consumer Retailing ....... 79
Part 3: Business-to-Business E-Commerce ....... 79
Part 4: Other EC Models and Applications ....... 79
Part 5: EC Support Services ....... 80
Part 6: EC Strategy and Implementation ....... 80
Online Part 7: Applications and Site Development ....... 80
Online Tutorial ....... 81
Online Appendices ....... 81
Online Supplements ....... 81

MANAGERIAL ISSUES ....... 81
SUMMARY ....... 82
KEY TERMS ....... 83
QUESTIONS FOR DISCUSSION ....... 83
REAL-WORLD CASE: GOOGLE IS CHANGING EVERYTHING ....... 83
TEAM ASSIGNMENTS AND ROLE PLAYING ....... 86
INTERNET EXERCISES ....... 86

**CHAPTER 2** E-MARKETPLACES: STRUCTURES AND MECHANISMS ....... 87

How Blue Nile Inc. Is Changing the Jewelry Industry ....... 88

2.1 E-MARKETPLACES ....... 89
Electronic Markets ....... 89
E-Marketplace Components and Participants ....... 90

Case 2.1 **EC Application:** WebMD ....... 91

2.2 TYPES OF E-MARKETPLACES AND MECHANISMS: FROM STOREFRONTS TO PORTALS ....... 92
Electronic Storefronts ....... 92
Electronic Malls ....... 93
Types of Stores and Malls ....... 93
Types of E-Marketplaces ....... 94
Information Portals ....... 94

2.3 PARTICIPANTS, TRANSACTIONS, INTERMEDIATION, AND PROCESSES IN E-COMMERCE ....... 96
Sellers, Buyers, and Transactions ....... 96
The Roles and Value of Intermediaries in E-Marketplaces ....... 96
Disintermediation and Reintermediation ....... 98
The Purchasing Process ....... 98
2.4 ELECTRONIC CATALOGS AND OTHER MARKET MECHANISMS . . . 99
   Electronic Catalogs 99
   Search Engines and Intelligent Agents 101
   Shopping Carts 102
   Online Classified Ads 102
Case 2.2 EC Application: Craigslist: The Ultimate Online Classified Site ........................................ 103

2.5 AUCTIONS AS EC MARKET MECHANISMS ............... 103
   Definition and Characteristics 103
   Traditional Auctions Versus E-Auctions 104
Case 2.3 EC Application: Innovative Auctions ............... 105
   Dynamic Pricing and Types of Auctions 105
   Benefits, Limitations, and Impacts of E-Auctions 108
Insights and Additions 2.1: Benefits of E-Auctions .... 109
Case 2.4 EC Application: eBay—The World’s Largest Auction Site ........................................ 110

2.6 BARTERING AND NEGOTIATING ONLINE ............. 112
   Online Bartering 112
   Online Negotiating 113
Case 2.5 EC Application: Turning a Paper Clip into a House . 113

2.7 WEB 2.0 MECHANISMS AND TOOLS ..................... 114
   Blogging (Weblogging) and Blogs 114
Case 2.6 EC Application: Stonyfield Farm Adopts Blogs for Public Relations ............... 116
   RSS 117
   Mashups 118

MANAGERIAL ISSUES ......................................... 118

SUMMARY ....................................................... 119

KEY TERMS ..................................................... 120

QUESTIONS FOR DISCUSSION .............................. 120

REAL-WORLD CASE: STORMHOEK VINEYARDS EXCELS WITH WEB 2.0 TOOLS . 120

TEAM ASSIGNMENTS AND ROLE PLAYING .................. 121

INTERNET EXERCISES ........................................ 122

2A BUILD-TO-ORDER PRODUCTION ....................... 123

Part 2 Internet Consumer Retailing 126

CHAPTER 3 RETAILING IN ELECTRONIC COMMERCE: PRODUCTS AND SERVICES ......................... 126

Amazon.com: Taking E-Tailing to the Next Level ........ 127

3.1 INTERNET MARKETING AND ELECTRONIC RETAILING . . . 128
   Overview of Electronic Retailing 129
   Size and Growth of the B2C Market 129
   What Sells Well on the Internet 131
   Characteristics of Successful E-Tailing 131
### 3.2 E-TAILING BUSINESS MODELS

Classification by Distribution Channel 133

#### Insights and Additions 3.1: Selling Cars Online: Build to Order

- Other B2C Models and Special Retailing 138

### 3.3 TRAVEL AND TOURISM SERVICES ONLINE

- Services Provided 140
- Special Services 140
- Benefits and Limitations of Online Travel Services 141
- Corporate Travel 141

#### Case 3.1 EC Application: WAYN: A Social Network for Travelers

- Impact of EC on the Travel Industry 142

### 3.4 EMPLOYMENT PLACEMENT AND THE JOB MARKET ONLINE

- The Internet Job Market 144
- Benefits and Limitations of the Electronic Job Market 145

### 3.5 REAL-ESTATE, INSURANCE, AND STOCK TRADING ONLINE

- Real Estate Online 147
- Insurance Online 148
- Online Stock Trading 148

### 3.6 BANKING AND PERSONAL FINANCE ONLINE

- Home Banking Capabilities 150
- Virtual Banks 151
- International and Multiple-Currency Banking 152
- Online Financial Transaction Implementation Issues 152

#### Case 3.2 EC Application: Security for Online Bank Transactions

- Personal Finance Online 154

### 3.7 ON-DEMAND DELIVERY OF PRODUCTS AND DELIVERY OF DIGITAL PRODUCTS

- On-Demand Delivery of Products 155
- Online Delivery of Digital Products, Entertainment, and Media 156
- Online Entertainment 157

### 3.8 ONLINE PURCHASE-DECISION ADS

- Shopping Portals 158
- Shopbots Software Agents 158
- “Spy” Services 159
- Business Ratings Sites 159
- Trust Verification Sites 160
- Other Shopping Tools 160

### 3.9 PROBLEMS WITH E-TAILING AND LESSONS LEARNED

- Successful Click-and-Mortar Strategies 161
3.10 ISSUES IN E-TAILING .............................................. 162
Disintermediation and Reintermediation 162
Channel Conflict 163
Determining the Right Price 163
Product and Service Customization and
Personalization 164
Fraud and Other Illegal Activities 164
How to Make Customers Happy 164

MANAGERIAL ISSUES ............................................... 165

SUMMARY .......................................................... 165
KEY TERMS .......................................................... 166
QUESTIONS FOR DISCUSSION .................................... 167
REAL-WORLD CASE: WAL-MART POWERS ONLINE .......... 167
TEAM ASSIGNMENTS AND ROLE PLAYING .................... 169
INTERNET EXERCISES ............................................ 169

CHAPTER 4 ONLINE CONSUMER BEHAVIOR, MARKET
RESEARCH, AND ADVERTISEMENT ........................... 171

Netflix Increases Sales Using Movie
Recommendations .................................................. 172

4.1 LEARNING ABOUT CONSUMER BEHAVIOR AND
PURCHASING DECISIONS ONLINE .......................... 173
The Consumer Purchase Decision-Making Process 173
Mass Marketing, Market Segmentation, and
One-to-One Marketing 175

4.2 PERSONALIZATION, LOYALTY, SATISFACTION, AND
TRUST IN EC ...................................................... 176
Personalization in E-Commerce 176

Insights and Additions 4.1: Cookies in E-Commerce ... 177
Customer Loyalty 177
Satisfaction in EC 179
Trust in EC 180

4.3 MARKET RESEARCH FOR EC ............................... 181
Methods for Conducting Market Research Online 182

Case 4.1 EC Application: Internet Market Research
Expedites Time-to-Market at Procter & Gamble ........ 182
What Are Marketers Looking for in EC Market Research? 183
Market Research for One-to-One 183
Limitations of Online Market Research and
How to Overcome Them 187
Biometric Marketing 187

4.4 INTERNET MARKETING IN B2B ............................ 188
Organizational Buyer Behavior 188
The Marketing and Advertising Processes in B2B 189
Methods for B2B Online Marketing 189

4.5 WEB ADVERTISING ............................................ 190
Overview of Web Advertising 190
Some Internet Advertising Terminology 191
Why Internet Advertising? 192
Advertising Networks 193

4.6 ONLINE ADVERTISING METHODS 194
Banners 194
Pop-Up and Similar Ads 195
E-Mail Advertising 196
Newspaper-Like and Classified Ads 197
Search Engine Advertisement 197

Insights and Additions 4.2: Google's Advertisement Methods 199
Advertising in Chat Rooms, Blogs, and Social Networks 200
Other Forms of Advertising 200

Insights and Additions 4.3: Innovation in Targeted Ads 201

4.7 ADVERTISING STRATEGIES AND PROMOTIONS ONLINE 203
Affiliate Marketing and Advertising 203
Ads as a Commodity 203
Viral Marketing 204
Customizing Ads 204
Online Events, Promotions, and Attractions 205

4.8 SPECIAL ADVERTISING TOPICS 207
Permission Advertising 207
Advertisement as a Revenue Model 207
Measuring Online Advertising's Effectiveness 207
Wireless Advertising 207
Ad Content 208
Software Agents in Marketing and Advertising Applications 208

MANAGERIAL ISSUES 209
SUMMARY 210
KEY TERMS 211
QUESTIONS FOR DISCUSSION 211
REAL-WORLD CASE: TOYOTA SCION'S INNOVATIVE ADVERTISING STRATEGIES 212
TEAM ASSIGNMENTS AND ROLE PLAYING 214
INTERNET EXERCISES 214

Part 3 Business-to-Business E-Commerce 216

CHAPTER 5 B2B E-COMMERCE 216
General Motors' B2B Initiatives 217

5.1 CONCEPTS, CHARACTERISTICS, AND MODELS OF B2B EC 218
Basic B2B Concepts 218
Market Size and Content of B2B 218
The Basic Types of B2B Transactions and Activities 219
The Basic Types of BCB E-Marketplaces and Services 220
B2B Characteristics 221
Supply Chain Relationships in B2B 222

Insights and Additions 5.1: Summary of B2B Characteristics 222

Virtual Service Industries in B2B 223
The Benefits of B2B 224

5.2 ONE-TO-MANY: SELL-SIDE E-MARKETPLACES 225
Sell-Side Models and Activities 225
Direct Sales from Catalogs 226

Case 5.1 EC Application: Gregg's Cycles Goes Online 227
Case 5.2 EC Application: Whirlpool B2B Trading Portal 228
Direct Sales: The Example of Cisco Systems 229

5.3 SELLING VIA INTERMEDIARIES AND DISTRIBUTORS 229

5.4 SELLING VIA AUCTIONS 229
Using Auctions on the Sell Side 229

Case 5.3 EC Application: W.W. Grainger and Goodrich Corporation 230
Auctioning from the Company's Own Site 231
Using Intermediaries in Auctions 231
Examples of B2B Forward Auction 231

Case 5.4 EC Application: How the State of Pennsylvania Sells Surplus Equipment 232

5.5 ONE-FROM-MANY: BUY-SIDE E-MARKETPLACES AND E-PROCUREMENT 232
Procurement Methods 233
Inefficiencies in Traditional Procurement Management 234
The Goals and Benefits of E-Procurement 234

5.6 BUY-SIDE E-MARKETPLACES: REVERSE AUCTIONS 236
Conducting Reverse Auctions 237
Group Reverse Auctions 237

5.7 OTHER E-PROCUREMENT METHODS 238
An Internal Purchasing Marketplace: Aggregating Suppliers' Catalogs 238
Buying at E-Auctions 239
Buying from E-Distributors 241
Purchasing Direct Goods 241
Electronic Bartering 241

5.8 B2B ELECTRONIC EXCHANGES: DEFINITIONS AND CONCEPTS 242
Dynamic Pricing 242

Case 5.5 EC Application: Chemconnect: The World Commodity Chemical Exchange 243
Functions of Exchanges 244
Advantages, Limitations, and the Revenue Model of Exchanges 245
### Chapter 5

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.9 B2B Portals, Directories, and Trading Exchanges</td>
<td>247</td>
</tr>
<tr>
<td>B2B Portals and Directories</td>
<td>248</td>
</tr>
<tr>
<td>Third-Party and Directories Exchanges</td>
<td>249</td>
</tr>
<tr>
<td>Case 5.6 EC Application: Agentrics: A Giant Retail Exchange</td>
<td>249</td>
</tr>
<tr>
<td>Comparing the Many-to-Many B2B Models</td>
<td>251</td>
</tr>
<tr>
<td>5.10 Partner and Supplier Relationship Management</td>
<td>251</td>
</tr>
<tr>
<td>Partner and Supplier Relationship Management</td>
<td>251</td>
</tr>
<tr>
<td>E-Communities and PRM</td>
<td>252</td>
</tr>
<tr>
<td>Managerial Issues</td>
<td>252</td>
</tr>
<tr>
<td>Summary</td>
<td>253</td>
</tr>
<tr>
<td>Key Terms</td>
<td>254</td>
</tr>
<tr>
<td>Questions for Discussion</td>
<td>255</td>
</tr>
<tr>
<td>Real-World Case: Alibaba.Com</td>
<td>255</td>
</tr>
<tr>
<td>Team Assignments and Role Playing</td>
<td>257</td>
</tr>
<tr>
<td>Internet Exercises</td>
<td>257</td>
</tr>
</tbody>
</table>

### Chapter 6

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Supply Chains, Collaborative Commerce, and Corporate Portals</td>
<td>259</td>
</tr>
<tr>
<td>Boeing's Global Supply Chain for the Dreamliner</td>
<td>260</td>
</tr>
<tr>
<td>6.1 E-Supply Chains</td>
<td>261</td>
</tr>
<tr>
<td>Definitions and Concepts</td>
<td>261</td>
</tr>
<tr>
<td>Supply Chain Parts</td>
<td>263</td>
</tr>
<tr>
<td>Managing Supply Chains</td>
<td>263</td>
</tr>
<tr>
<td>6.2 Supply Chain Problems and Solutions</td>
<td>266</td>
</tr>
<tr>
<td>Typical Problems Along the Supply Chain</td>
<td>266</td>
</tr>
<tr>
<td>The Need for Information Sharing Along the Supply Chain</td>
<td>267</td>
</tr>
<tr>
<td>Case 6.1 EC Application: Nike's Supply Chain: Failure and Eventual Success</td>
<td>268</td>
</tr>
<tr>
<td>EC Solutions Along the Supply Chain</td>
<td>269</td>
</tr>
<tr>
<td>Case 6.2 EC Application: Netafim: Problems and Solutions on the Way to an Agile Global Supply Chain</td>
<td>270</td>
</tr>
<tr>
<td>6.3 RFID as a Key Enabler of Supply Chains</td>
<td>272</td>
</tr>
<tr>
<td>The RFID Revolution</td>
<td>272</td>
</tr>
<tr>
<td>Limitations of RFID</td>
<td>276</td>
</tr>
<tr>
<td>RuBee: An Alternative to RFID?</td>
<td>277</td>
</tr>
<tr>
<td>6.4 Collaborative Commerce</td>
<td>278</td>
</tr>
<tr>
<td>Essentials of Collaborative Commerce</td>
<td>278</td>
</tr>
<tr>
<td>Collaboration Hubs</td>
<td>278</td>
</tr>
<tr>
<td>Case 6.3 EC Application: Leightons Opticians Sees the Value of Collaborative Hubs</td>
<td>279</td>
</tr>
<tr>
<td>Collaborative Networks</td>
<td>279</td>
</tr>
<tr>
<td>Representative Examples of E-Collaboration</td>
<td>280</td>
</tr>
<tr>
<td>Barriers to E-Commerce</td>
<td>284</td>
</tr>
</tbody>
</table>
Insights and Additions 6.1: Using EC in the Retail Industry to Reduce Time and Cost ............... 285

6.5 COLLABORATIVE PLANNING, CPFR, AND COLLABORATIVE DESIGN ..................... 285
Collaborative Planning, Forecasting, and Replenishment (CPFR) 286

Case 6.4 EC Application: West Marine: A CPFR Success Story ..................... 287
Advanced Planning and Scheduling 288
Product Life Cycle Management 288
Supporting Joint Design 288

6.6 SUPPLY CHAIN INTEGRATION ..................... 289
How Information Systems Are Integrated 289
Enabling Integration and the Role of Standards and Web Services 289
Integration Along the Extended Supply Chain 290

Insights and Additions 6.2: Seamless Integration of Business Partners' Systems ......... 290

6.7 CORPORATE (ENTERPRISE) PORTALS ..................... 291
Corporate Portals: An Overview 291
Types of Corporate Portals 291

Insights and Additions 6.3: Some Large-Company Corporate Portals ..................... 292
Corporate Portal Applications 294
Justifying Portals 294

6.8 COLLABORATION TOOLS ..................... 296
Groupware 296
Other Collaborative Tools and Wikis 301
Implementation Issues for Online Collaboration 302

MANAGERIAL ISSUES ..................... 302
SUMMARY ..................... 303
KEY TERMS ..................... 304
QUESTIONS FOR DISCUSSION ..................... 304
REAL-WORLD CASE: WAL-MART LEADS RFID ADOPTION ..................... 305
TEAM ASSIGNMENTS AND ROLE PLAYING ..................... 306
INTERNET EXERCISES ..................... 307

Part 4 Other EC Models and Applications 308

CHAPTER 7 INNOVATIVE EC SYSTEMS: FROM E-GOVERNMENT AND E-LEARNING TO CONSUMER-TO-CONSUMER COMMERCE ..................... 308
Henkels & McCoy Inc. Improves Bottom Line with E-Training ..................... 309

7.1 E-GOVERNMENT: AN OVERVIEW ..................... 310
Definition and Scope 310
Government-to-Citizens 310
Government-to-Business 314

Case 7.1 **EC Application:** Contract Management in Australia 315
Government-to-Government 315
Government-to-Employees and Internal Efficiency and Effectiveness 316

Case 7.2 **EC Application:** G2E in the U.S. Navy 316
Facilitating Homeland Security 317

7.2 **IMPLEMENTING E-GOVERNMENT** 318
The Transformation to E-Government 318
Implementation Issues of E-Government 320
Citizen Adoption of E-Government 320

7.3 **E-LEARNING** 321
The Basics of E-Learning: Definitions and Concepts 321

Case 7.3 **EC Application:** E-Learning at Cisco Systems 322
Benefits and Drawbacks of E-Learning 323

**Insights and Additions 7.1: Blackboard and WebCT** 325
Preventing E-Learning Failures 326
Distance Learning and Online Universities 327
Online Corporate Training 328

**Insights and Additions 7.2: Examples of Corporate Training** 328
Implementing E-Learning and E-Training in Learning Centers 330
Edutainment 330

Case 7.4 **EC Application:** Online Global Learning Center at W.R. Grace 331
E-Learning Tools 332

7.4 **ONLINE PUBLISHING AND E-BOOKS** 332
Approaches and Methods to Online Publishing 333
Electronic Books 334
Print-on-Demand 337

7.5 **KNOWLEDGE MANAGEMENT AND E-COMMERCE** 338
KM Types and Activities 338
Knowledge Portals 339

Case 7.5 **EC Application:** Online Knowledge Sharing at Xerox 340
Employees’ Knowledge Networks and Expert Advice within Organizations 341

Case 7.6 **EC Application:** How the U.S. Department of Commerce Uses an Expert Location System 343

**Insights and Additions 7.3: X1 Enterprise Software Searches for Knowledge** 344

7.6 **CUSTOMER-TO-CUSTOMER E-COMMERCE** 344
C2C Auctions 344
Classified Ads 345
CHAPTER 8 SOCIAL NETWORKS AND INDUSTRY DISRUPTORS IN THE WEB 2.0 ENVIRONMENT ...

Wikipedia and Its Problems of Content Quality and Privacy Protection

8.1 THE WEB 2.0 REVOLUTION, SOCIAL NETWORKS, INNOVATIONS, AND INDUSTRY DISRUPTORS

Web 2.0 Revolution
What Is Web 2.0?
Foundation of Web 2.0
Representative Characteristics of Web 2.0
Social Media
Industry and Market Disruptors

Insights and Additions 8.1: Weddings Are Going High Tech with Web 2.0

8.2 VIRTUAL COMMUNITIES

Characteristics of Communities and Classification

Insights and Additions 8.2: Types of Online Communities

Commercial Aspects of Communities
Key Strategies for Successful Online Communities

8.3 ONLINE SOCIAL NETWORKS

Concepts and Definitions
Representative Social Networks: From Facebook to Classmates.com

YOUTUBE AND COMPANY—A WHOLE NEW WORLD

YouTube: The Essentials
Brief History and Technology
The Social Impact of YouTube
The Business and Revenue Models

Case 8.1 EC Application: How YouTube Capitalizes on Major Events and Commercial Videos

Implementation Difficulties:
The Copyright Problem
The Competition
8.5 BUSINESS AND ENTREPRENEURIAL NETWORKS .......... 371
Business Networks 371
Corporate Social Networks 373
Social Marketplace 373

8.6 ENTERTAINMENT WEB 2.0 STYLE: FROM COMMUNITIES TO ENTERTAINMENT MARKETPLACES ............ 374
Entertainment and Business Communities 374
Advertising Movies and Events in Communities 375
Online Marketplace for Movies 375
The Hype Machine 375
Internet Series 375
Mobile Web 2.0 Devices for Entertainment and Work 376
Yahoo! Go 377

8.7 TECHNOLOGY SUPPORT: FROM BLOGGER.COM TO INFRASTRUCTURE SERVICES ................. 378
Web 2.0 and Social Software 378
Tools for Blogging and Wikis 378
Personalization Tools: From My Yahoo! to Netvibes 381
Development Tools 381
Tools that Support Applications 382
Infrastructure Support 383
Where Is Web 2.0 Software Going? 384

8.8 WEB 2.0, SOCIAL NETWORKS, AND E-COMMERCE .......... 385
Why Is There an Interest? 385

Case 8.2 EC Application: Revenue Sources at YouTube ..... 386
Advertising 386
Shopping 388
Feedback from Customers 388
Other Revenue-Generation Strategies in Social Networks 390
Web 2.0 Commerce Activities Inside the Enterprise 391

8.9 THE FUTURE: WEB 3.0 .......... 391
Web 3.0: What's Next? 392
MANAGERIAL ISSUES .................................................. 394
SUMMARY .............................................................. 394
KEY TERMS ............................................................. 395
QUESTIONS FOR DISCUSSION ................................. 395
REAL-WORLD CASE: WEB 2.0 AT EASTERN MOUNTAIN SPORTS ... 396
TEAM ASSIGNMENTS AND ROLE PLAYING .................. 398
INTERNET EXERCISES .................................................. 398

CHAPTER 9 MOBILE COMPUTING AND COMMERCE .......... 399
The Blooming of Food Lion ................................. 400

9.1 MOBILE COMMERCE: ATTRIBUTES, BENEFITS, AND DRIVERS .................................................. 401
Attributes of M-Commerce 401
Drivers of M-Commerce 402
9.2 MOBILE COMPUTING COMPONENTS AND INFRASTRUCTURE ......................... 403
Mobile Devices 404
Mobile Computing Software 405
Mobile Computing Services 407
9.3 WIRELESS TELECOMMUNICATIONS NETWORKS .......................... 409
Personal Area Networks 409
Wireless Local Area Networks and Wi-Fi 410
Municipal Wi-Fi Networks 411
Insights and Additions 9.1: Wi-Fi Takes Off .............................. 412
Wireless Wide Area Networks 414
9.4 MOBILE FINANCIAL APPLICATIONS ..................................... 416
Mobile Banking and Financial Services 417
Wireless Electronic Payment Systems 417
9.5 MOBILE SHOPPING, ADVERTISING, AND CONTENT PROVISION .......... 418
Wireless Shopping 418
Mobile and Targeted Advertising 419
Mobile Portals 419
9.6 MOBILE ENTERPRISE AND SUPPLY CHAIN .............................. 420
Support of Mobile Employees 420
Case 9.1 EC Application: Mobile Sales Solution
Results in £1 Million Revenue Boost ............................. 421
Supporting Other Types of Work 423
Customer and Partner Support 424
B2B M-Commerce and Supply Chain Management 424
9.7 MOBILE CONSUMER SERVICES ......................................... 425
Mobile Entertainment 426
9.8 LOCATION-BASED MOBILE COMMERCE ............................. 427
The Technology for L-Commerce 428
Geographical Information System and GPS 428
Location-Based Advertising 429
Insights and Additions 9.2: The Eyes Have It .............................. 430
Telematics and Telemetry Applications 430
Other Applications of Location-Based Systems 431
Barriers to Location-Based M-Commerce 432
9.9 SECURITY AND OTHER IMPLEMENTATION ISSUES IN M-COMMERCE ....................... 432
M-Commerce Security Issues 432
Technological Barriers to M-Commerce 434
Ethical, Legal, and Health Issues in M-Commerce 434
MANAGERIAL ISSUES .......................................................... 436
SUMMARY ................................................................. 436
KEY TERMS ............................................................... 437
QUESTIONS FOR DISCUSSION ........................................... 438
REAL-WORLD CASE: WI-FI SENSOR NET AIDS WINE MAKERS .................. 438
CHAPTER 10  E-COMMERCE SECURITY  .......................................... 441

Cyber Crimes Cut into E-Tailers' Profitability  .......... 442

10.1 STOPPING E-COMMERCE CRIMES  .......... 443

10.2 E-COMMERCE SECURITY STRATEGY AND
LIFE CYCLE APPROACH  ........................................ 445

The Internet's Vulnerable Design  445
The Shift to Profit-Motivated Crimes  445
Ignoring EC Security Best Practices  445

10.3 INFORMATION ASSURANCE  .................. 446

Confidentiality, Integrity, and Availability  447
Authentication, Authorization, and Nonrepudiation  447
E-Commerce Security Taxonomy  447

10.4 ENTERPRISEWIDE E-COMMERCE SECURITY AND
PRIVACY MODEL  ............................................. 448

Security Tools: Hardware and Software  449
Privacy  449

Case 10.1  EC Application: Facebook Social Advertising
Violated Privacy  ............................................. 450

10.5 BASIC E-COMMERCE SECURITY ISSUES AND
PERSPECTIVES  .............................................. 450

10.6 THREATS AND ATTACK  ....................... 451

Denial of Service, Zombies, and Phishing  452
Botnets  452
Malicious Code: Viruses, Worms, and Trojan Horses  452

10.7 SECURING E-COMMERCE COMMUNICATIONS  ........ 453

Access Control  453

Case 10.2  EC Application: The Eyes Have It .......... 454

Public Key Infrastructure  455

10.8 SECURING E-COMMERCE NETWORKS  .......... 458

Firewalls  459
Virtual Private Networks (VPNS)  460
Intrusion Detection Systems (IDS)  460
Honeynets and Honeypots  461

10.9 FRAUD AND CONSUMER AND SELLER PROTECTION  .. 461

Fraud on the Internet  461

Insights and Additions 10.1: Typical Fraud Schemes  ........ 462

Consumer Protection  462

Case 10.3  EC Application: Internet Stock Fraud  ........ 463

Insights and Additions 10.2: Internet Shoppers' Rights  .......... 464

Seller Protection  464
CHAPTER 11  ELECTRONIC COMMERCE PAYMENT SYSTEMS, ORDER FULFILLMENT, AND OTHER SUPPORT SERVICES 472

Pay-Per-View Pages: The Next iTunes 473

11.1 THE PAYMENT REVOLUTION 474

11.2 USING PAYMENT CARDS ONLINE 476
  Processing Cards Online 476
  Fraudulent Card Transactions 478

11.3 SMART CARDS 480
  Types of Smart Cards 480
  Applications of Smart Cards 481

Case 11.1  EC Application: TaiwanMoney Card 483
  Securing Smart Cards 484

11.4 STORED-VALUE CARDS 485

11.5 E-MICROPAYMENTS 486

11.6 E-CHECKING 489

Case 11.2  EC Application: To POP or BOC: Digital Checks in the Offline World 489

11.7 B2B ELECTRONIC PAYMENTS 492
  Current B2B Payment Practices 492
  Enterprise Invoice Presentment and Payment 493

11.8 ORDER FULFILLMENT AND LOGISTICS—AN OVERVIEW 496
  Overview of Order Fulfillment 496
  Overview of Logistics 497
  The EC Order Fulfillment Process 497

11.9 ADDRESSING PROBLEMS IN ORDER FULFILLMENT 500
  Typical Supply Chain Problems 500
  Solutions to Order Fulfillment Problems 501
  Improvements in the Order-Taking Process 501
  Warehousing and Inventory Management
    Improvements 501

Case 11.3  EC Application: How WMS Helps Schurman Improve Its Internal and External Order Fulfillment System 502
  Partnering Efforts and Outsourcing Logistics 503
  Speeding Deliveries 503
Contents 23

Case 11.4  **EC Application:** UPS Provides Broad EC Services .......................... 504
  Handling Returns (Reverse Logistics) 505
  Order Fulfillment in B2B 506

Case 11.5  **EC Application:** How Daisy Brand Fulfills B2B Orders .......................... 507

11.10 **OTHER EC SUPPORT SERVICES** .......................... 508
  Consulting Services 508
  EC Outsourcing Services 508
  IT Outsourcing and Application Service Providers 510

**MANAGERIAL ISSUES** .......................... 510

**SUMMARY** .......................... 511

**KEY TERMS** .......................... 513

**QUESTIONS FOR DISCUSSION** .......................... 513

**REAL-WORLD CASE:** ELIMINATING LETTERS OF CREDIT: 514
  RITE AID DEPLOYS THE TRADECARD SOLUTION

**TEAM ASSIGNMENTS AND ROLE PLAYING** .......................... 516

**INTERNET EXERCISES** .......................... 516

---

**Part 6**  **EC Strategy and Implementation** 518

**CHAPTER 12**  **E-COMMERCE STRATEGY, JUSTIFICATION, AND GLOBAL IMPLEMENTATION** 518

**Travelocity's Successful E-Strategy** .......................... 519

12.1 **STRATEGY PLANNING AND IMPLEMENTATION** .......................... 520
  Strategy and the Web Environment 520

Case 12.1  **EC Application:** Measuring Profit on the Web .......................... 524
  Business Planning in E-Commerce 525
  Business Case 525

Case 12.2  **EC Application:** Strategic Planning at InternetNZ .......................... 526
  E-Commerce Strategy: Concepts and Overview 527

12.2 **JUSTIFICATION AND COST-BENEFIT ANALYSIS** .......................... 528
  Other Reasons Why EC Justification Is Needed 529
  EC Investment Categories and Benefits 529
  How Is an EC Investment Justified? 530
  What Needs to Be Justified? When Should Justification Take Place? 530
  Using Metrics in Justification 530

12.3 **DIFFICULTIES IN MEASURING AND JUSTIFYING E-COMMERCE INVESTMENTS AND SUCCESS** 532
  The EC Justification Process 532
  Difficulties in Measuring Productivity and Performance Gains 532
  Determining E-Commerce Success 534
Online Chapters

Part 7 Applications and Site Development

CHAPTER 13 LAUNCHING A SUCCESSFUL ONLINE BUSINESS AND EC PROJECTS

OBO Sets Its Goals for Success

13.1 GETTING INTO E-COMMERCE

13.2 STARTING A NEW ONLINE BUSINESS
   An E-Start-Up Is a Start-Up
   Creating a New Company or Adding an Online Project

Case 13.1 EC Application: Innovation and Creativity
   at Amazon.com
   Online Business Planning

Insights and Additions 13.1: A High-Level Business Case Template

   Funding a New Online Business
   Second Round of Financing: Venture Capital

13.3 ADDING E-COMMERCE INITIATIVES OR TRANSFORMING TO AN E-BUSINESS
   Adding EC Initiatives to an Existing Business
   Transformation to an E-Business

13.4 BUILDING OR ACQUIRING A WEB SITE
   Classification of Web Sites
   Building a Web Site

13.5 WEB SITE HOSTING AND OBTAINING A DOMAIN NAME
   Web Hosting Options

Case 13.2 EC Application: How Small Companies Use a Storebuilder
   Registering a Domain Name

13.6 CONTENT CREATION, DELIVERY, AND MANAGEMENT
   Categories and Types of Content
   Creation or Acquisition?
   Content Management and Maintenance

Case 13.3 EC Application: Anglesea Online Uses Content Management Software for Success
   Catalog Content and Its Management
   Content Maximization and Streaming Services

Case 13.4 EC Application: Akamai Technologies
13.7 WEB SITE DESIGN
  Information Architecture
  Site Navigation
  Performance
  Colors and Graphics
  Web Site Usability

13.8 PROVIDING E-COMMERCE SUPPORT SERVICES
  Who Builds the Web Site?
  Payments: Accepting Credit Cards
  Web Site Promotion
  Customer Relationship Management

13.9 OPENING A WEB STOREFRONT
  Options for Acquiring Storefronts
  Yahoo! Small Business

MANAGERIAL ISSUES

SUMMARY

KEY TERMS

QUESTIONS FOR DISCUSSION

REAL-WORLD CASE: HOW TELECOM NEW ZEALAND (TNZ)
  EXCELS WITH CONTENT MANAGEMENT

TEAM ASSIGNMENTS AND ROLE PLAYING

INTERNET EXERCISES

CHAPTER 14 BUILDING E-COMMERCE APPLICATIONS
AND INFRASTRUCTURE

Helping Customers Navigate the Web Site
  and Increase Sales at Campmor

14.1 MAJOR E-COMMERCE APPLICATIONS AND THEIR
  FUNCTIONALITIES
  B2C Storefronts
  Supplier Sell-Side B2B Sites
  E-Procurement

14.2 A FIVE-STEP APPROACH TO DEVELOPING AN E-COMMERCE
  LANDSCAPE

Case 14.1 EC Application: TD Banknorth—Online
  Customer Service Rightnow
  Step 1: Identifying, Justifying, and Planning EC Systems
  Step 2: Creating an EC Architecture
  Step 3: Selecting a Development Option
  Step 4: Installing, Testing, Integration, and Deploying EC Applications
  Step 5: Operations, Maintenance, and Updating
  Managing the Development Process

14.3 DEVELOPMENT OPTIONS FOR E-COMMERCE APPLICATIONS
  In-House Development: Insourcing
  Buy the Applications
Online Contents

- Outsourcing/Leasing EC Applications
- Utility Computing
- Application Service Providers (ASP)
- Software as a Service (SaaS)
- Rise of Web Services and Service-Oriented Architecture
- The Roles of XML and Web Services
- Services
- Second-Generation Web Services

**Case 14.2** **EC Application**: A Social Networking Slam Dunk by Portland Trail Blazers

**Case 14.3** **EC Application**: Verio Sets Its Sights on Online Small-to-Medium Firms

- Virtualization
- Other Development Options

**Insights and Additions 14.1**: A Virtualization Example: “The Next Big Thing”

- **14.4** CRITERIA FOR SELECTING A DEVELOPMENT APPROACH
- **14.5** E-COMMERCE SOFTWARE PACKAGES AND SUITES
  - Functional Software Packages
  - EC Suites

**Case 14.4** **EC Application**: Seal Company Expects $5 Million Revenue Boost from Innovative Internet Ordering Systems
  - IBM’s WebSphere Commerce Suite
  - Oracle’s EC Products
  - Other EC Suites

- **14.6** CONNECTING TO DATABASES AND OTHER ENTERPRISE SYSTEMS
  - Connecting to Databases
  - Integrating EC Applications and Back-End Systems
  - Middleware

- **14.7** VENDOR AND SOFTWARE SELECTION
  - Step 1: Identify Potential Vendors
  - Step 2: Determine the Evaluation Criteria
  - Step 3: Evaluate Vendors and Packages
  - Step 4: Choose the Vendor and Package
  - Step 5: Negotiate a Contract
  - Step 6: Establish a Service Level Agreement

- **14.8** USAGE ANALYSIS AND SITE MANAGEMENT
  - Log Files

**Case 14.5** **EC Application**: Personal Creations Boosts Online Sales by 31 Percent with a Revamped Web Site
  - E-Commerce Management Tools

**MANAGERIAL ISSUES**

**SUMMARY**

**KEY TERMS**

**QUESTIONS FOR DISCUSSION**
REAL-WORLD CASE: MOLDING A NEW VISION FOR E-COMMERCE AT D-M-E
TEAM ASSIGNMENTS AND ROLE PLAYING
INTERNET EXERCISES

Online Chapter Files

CHAPTER 1 ONLINE FILES
W1.1 MARKS & SPENCER—A NEW WAY TO COMPETE
W1.2 E-COMMERCE SUPPORTS FIELD EMPLOYEES AT MAYBELLINE
W1.3 THE SUCCESS STORY OF CAMPUSFOOD.COM
W1.4 ORGANIZATIONAL RESPONSES
W1.5 THE INTERNET AND THE INTRANET SHORTEN TIME-TO-MARKET FOR NEW PRODUCTS AND SERVICES
W1.6 COMMON REVENUE MODELS
W1.7 BENEFITS OF EC
W1.8 A DIGITAL ENTERPRISE: HOW A COMPANY USES THE INTERNET, INTRANETS, AND EXTRANETS

CHAPTER 2 ONLINE FILES
W2.1 DIAMONDS FOREVER—ONLINE
W2.2 EXAMPLES OF DIGITAL PRODUCTS
W2.3 HOW RAFFLES HOTEL IS CONDUCTING E-COMMERCE
W2.4 NTE EVENS THE LOAD
W2.5 INFOMEDIARIES AND THE INFORMATION FLOW MODEL
W2.6 LIMITATIONS OF DIRECT INTERACTIONS OF INFOMEDIARIES
W2.7 ELECTRONIC CATALOGS AT OFFICEMAX
W2.8 THE “NAME-YOUR-OWN-PRICE” C2B MODEL
W2.9 E-AUCTION FRAUD AND ITS PREVENTION
W2.10 REVERSE MORTGAGE AUCTIONS IN SINGAPORE

CHAPTER 3 ONLINE FILES
W3.1 SOME CURRENT TRENDS IN B2C EC
W3.2 LITTLEWOODS SHOP DIRECT GROUP: FROM MAIL-ORDER CATALOG TO HIGH STREET TO THE WEB
W3.3 CATTOYS.COM, A SPECIALTY E-TAILER
W3.4 REPRESENTATIVE SPECIAL B2C SERVICES
W3.5 CONTENT-BASED FILTERING AT EUROVACATIONS.COM
W3.6 GATEWAY’S “BOOK-IT-IN-THE-BOX” E-TRAVEL SOLUTIONS
Chapter 3

W3.7 Intelligent Agents in Travel Services
W3.8 The European Job Mobility Portal (EURES CV-Search) and XING.com
W3.9 Intelligent Agents in the Electronic Job Market
W3.10 Real Estate Applications
W3.11 Investment Information
W3.12 Major Capabilities of Online Banking
W3.13 Implementing E-Grocery
W3.14 The Napster Experience: Its Rise, Collapse, and Revival
W3.15 Examples of Online Entertainment
W3.16 Reseller Ratings: Making Online Retailers Accountable to Customers
W3.17 Representative Shopping Software Agents and Comparison Sites
W3.18 What Lessons Can Be Learned from These EC Failures?

Chapter 4

Online Files

W4.1 A Model of Consumer Behavior Online
W4.2 From Mass Marketing to One-to-One Marketing
W4.3 How to Increase Trust in EC
W4.4 Online Market Segmentation Research
W4.5 Spyware
W4.6 Business Intelligence: From Data Collection to Data Mining and Analysis
W4.7 A Model of Organizational Buyer Behavior
W4.8 B2B Marketing
W4.9 From Mass Advertising to Interactive Advertising
W4.10 Advantages and Limitations of Internet Advertising
W4.11 E-Mail Advertising Methods
W4.12 How to Attract Web Surfers
W4.13 Web Advertising Strategy Helps P&G Compete
W4.14 Economics of Advertising
W4.15 Ad Management and Ad Localization
W4.16 A Framework for Classifying EC Agents

Chapter 5

Online Files

W5.1 Buying from Virtual Seller BigBoxx.com
W5.2 Cisco Connection Online
W5.3 Extranets
W5.4 From Traditional to Internet-Based EDI
W5.5 BOEING'S PARTS MARKETPLACE
W5.6 E-PROCUREMENT AT SCHLUMBERGER
W5.7 IMPLEMENTING E-PROCUREMENT
W5.8 COMPARISON OF PRE-INTERNET AND WEB-BASED REVERSE AUCTION PROCESSES
W5.9 THE PROCUREMENT REVOLUTION AT GENERAL ELECTRIC
W5.10 iMARKETKOREA
W5.11 THE RISE AND FALL OF COVISINT
W5.12 GLOBAL TRANSPORTATION NETWORK OCEAN PORTAL
W5.13 SUPPLIER RELATIONSHIP MANAGEMENT

CHAPTER 6 ONLINE FILES
W6.1 LAND O'LAKES COLLABORATES WITH COMPETITORS TO IMPROVE ITS LOGISTICS
W6.2 RADIO FREQUENCY IDENTIFICATION (RFID)
W6.3 WEBCOR BUILDERS GOES ONLINE WITH ITS PARTNERS
W6.4 ZARA: FAST FASHION SUPPLY CHAIN INNOVATOR
W6.5 CADENCE DESIGN SYSTEMS: DEPLOYING A CORPORATE PORTAL ON ITS INTRANET
W6.6 INTEGRATING EC AND ERP AT CYBEX
W6.7 WORKFLOW TECHNOLOGIES AND APPLICATIONS
W6.8 GROUP DECISION SUPPORT SYSTEMS
W6.9 SAMPLER OF COLLABORATIVE APPLICATIONS

CHAPTER 7 ONLINE FILES
W7.1 SAMPLE G2C MUNICIPAL SERVICES IN DENMARK
W7.2 INFORMATION TECHNOLOGIES CONSIDERED IMPORTANT FOR COUNTERTERRORISM
W7.3 KEY ISSUES AND TRENDS OF E-GOVERNMENT DEVELOPMENT AND IMPLEMENTATION
W7.4 A SAMPLER OF E-LEARNING TOOLS
W7.5 HOW IS KNOWLEDGE MANAGEMENT RELATED TO E-COMMERCE
W7.6 KNOWLEDGE MANAGEMENT ACTIVITIES
W7.7 KNOWLEDGE WORK TASKS WITH EXAMPLES OF SUPPORTING TECHNOLOGY
W7.8 E-GOVERNMENT INITIATIVES OF THE HKSAR FOR THE PERIOD 2007 TO 2010

CHAPTER 8 ONLINE FILES
W8.1 GOOGLE AND COMPANY: ADVERTISEMENT AND SEARCH ENGINE WARS
W8.2 ZOPA, PROSPER, AND P2P LENDING: WILL THEY DISRUPT BANKING?
W8.3 TYPICAL APPLICATIONS ON YOUTUBE
W8.4 COMPARISON OF 10 VIDEO-SHARING SERVICES
W8.5 USING INTELLIGENT SOFTWARE AND SOCIAL NETWORKING TO IMPROVE RECRUITING PROCESSES
W8.6 HOW WIKIS ARE USED
W8.7 NONTECHNOLOGICAL SUCCESS FACTORS
W8.8 EC TECHNOLOGY TRENDS

CHAPTER 9 ONLINE FILES
W9.1 I-MODE
W9.2 WAR DRIVING AND WAR CHALKING
W9.3 WI-FI MESH NETWORKS, GOOGLE TALK, AND INTEROPERABILITY
W9.4 NORDEA'S WAP SOLO BANKS PORTAL
W9.5 WIRELESS ADVERTISING IN ACTION
W9.6 U.S. FLEET SERVICES AND WIRELESS NETWORKING
W9.7 MOBILE WORKPLACE APPLICATIONS FOR CUSTOMER SUPPORT
W9.8 LOCATION-BASED TECHNOLOGIES
W9.9 NEXTBUS: A SUPERB CUSTOMER SERVICE
W9.10 ONSTAR
W9.11 SECURITY APPROACHES FOR MOBILE COMPUTING

CHAPTER 10 ONLINE FILES
W10.1 IMPACTS OF CHOICEPOINT'S NEGLIGENCE IN INFORMATION SECURITY
W10.2 HACKERS PROFIT FROM TJX'S CORPORATE DATA
W10.3 SPYWARE: A FINANCIAL ASSAULT WEAPON

CHAPTER 11 ONLINE FILES
W11.1 HONG KONG'S OCTOPUS CARD
W11.2 STORED-VALUE CARDS: TAPPING THE TEEN AND PRETEEN MARKETS
W11.3 GOLDEN CHANG MOVES TO TRADECARD ONLINE PAYMENTS
W11.4 HOW DELL COMPUTER FULFILLS CUSTOMER REPAIR ORDERS
W11.5 GROCERY SUPERMARKET KEEPS IT FRESH: WOOLWORTHS OF AUSTRALIA

CHAPTER 12 ONLINE FILES
W12.1 STRATEGIC PLANNING TOOLS
W12.2 TRADITIONAL METHODS FOR EVALUATING EC INVESTMENTS
W12.3 DIFFICULTIES IN MEASURING INTANGIBLE COSTS AND BENEFITS
W12.4 AUTOMATIC TRANSLATION OF WEB PAGES
W12.5 CRITICAL SUCCESS FACTORS FOR SMEs
W12.6 A FRAMEWORK FOR ETHICAL ISSUES
W12.7 LINKING TO A WEB SITE: THE TICKETMASTER CASE
W12.8 INTELLECTUAL PROPERTY WEB SITES—INTERNATIONAL SITES

APPENDIX A:
ECONOMICS AND IMPACTS OF E-COMMERCE
A.1 COMPETITION IN THE DIGITAL ECONOMY AND ITS IMPACT ON INDUSTRIES
   The Internet Ecosystem
   Impact on Whole Industries
A.2 IMPACTS OF EC ON BUSINESS PROCESSES AND ORGANIZATIONS
   Improving Marketing and Sales
Case A.1 EC Application: Bombay Sapphire in Virtual Glasses
   Transforming Organizations
Case A.2 EC Application: Rosenbluth International Moves to an E-Business
   The Changing Nature of Work
   Redefining Organizations
Case A.3 EC Application: Cisco’s Virtual Close

MANAGERIAL ISSUES
SUMMARY
KEY TERMS

APPENDIX B:
ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT
B.1 CRM AND ITS RELATIONSHIP WITH EC
   What is CRM: Definitions, Types, and Classifications
   e-CRM
   The Scope of CRM
Case B.1 EC Application: How Companies Use e-CRM
   Benefits and Limitations of CRM
   CRM Implementation Issues
   Integrating CRM into the Enterprise
   Justifying Customer Service and CRM Programs
   Future Directions of CRM
B.2 DELIVERING CUSTOMER SERVICE IN CYBERSPACE: CRM APPLICATIONS AND TOOLS
   Classifications of CRM Applications
   Customer-Facing Applications
Case B.2 EC Application: Developing IBM’s TeleWeb Channel
   Customer-Touching Applications
Case B.3  **EC Application**: American Airlines Offers Personalized Web Sites 
Customer-Centric Applications

Case B.4  **EC Application**: How HSBC Mexico Attracts New Business and Maximizes Existing Relationships with CRM 
Online Networking and Other Applications 
CRM Suites

**MANAGERIAL ISSUES**

**KEY TERMS**

**QUESTIONS FOR DISCUSSION**

**REAL-WORLD CASE**: 1-800-FLOWERS.COM USES DATA MINING TO FOSTER CUSTOMER RELATIONSHIP MANAGEMENT

**TEAM ASSIGNMENTS AND ROLE PLAYING**

**INTERNET EXERCISES**