Overview of Electronic Commerce and Social Commerce

1

Contents

Learning Objectives

Upon completion of this chapter, you will be able to:

1. Define electronic commerce (EC) and describe its various categories.
2. Describe and discuss the content and framework of EC.
3. Describe the major types of EC transactions.
4. Describe the drivers of EC.
5. Discuss the benefits of EC to individuals, organizations, and society.
6. Discuss social computing.
7. Describe social commerce and social software.
8. Understand the elements of the digital world.
9. Describe some EC business models.
10. List and describe the major limitations of EC.

OPENING CASE: HOW STARBUCKS IS CHANGING TO A DIGITAL AND SOCIAL ENTERPRISE

Starbucks is the world's largest coffee house chain, with 23,043 retail stores (see **news.starbucks.com/uploads/documents/AboutUs-Company_Timeline-Q42015.pdf**). Many people view Starbucks as a traditional store where customers drop in, place an order, pay for coffee or other products, consume their choices in the store, and go on about their business. The last thing many people think about is the utilization of computers in this business. The opposite is actually true. Starbucks is turning itself into a digital and social company.

For a long time, Starbucks was known as appealing to young people because of the free Wi-Fi Internet access provided in its U.S. and Canadian stores. But lately, the company embarked on several digital initiatives to become a truly tech-savvy company.

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The Problem

Starting in 2007, the company's operating income declined sharply (from over $1 billion in 2007 to $504 million in 2008 and $560 million in 2009). This decline was caused by not only the economic slowdown, but also by the increased competition (e.g., from Green Mountain Coffee Roasters), which intensified even during the recession. Excellent coffee and customer service helped, but only in the short run. A better solution was needed.

Starbucks realized that better interaction with its customers was necessary and decided to solve the problem via digitization.

The Solution: Going Digital and Social

In addition to traditional measures to improve its operation and margin, the company resorted to *electronic commerce*, meaning the use of computerized systems to conduct and support its business. The company appointed a Senior Executive with the title of Chief Digital Officer to oversee its digital activities. It also created the Digital Venture Group to conduct the technical implementation.

The Electronic Commerce Initiatives

Starbucks deployed several e-commerce projects; the major ones follow.

Online Store

Starbucks sells many of their products online at **store.starbucks.com**. These offerings include coffee, tea, and Starbucks equipment and merchandise. The store was in operation for years, using a typical shopping cart (called My Bag), but in August 2011, the company completely redesigned the webstore to make shopping more convenient and easy. In addition, customers (individual or companies) can schedule deliveries of standard and special items. Customers can order rare and exquisite coffee that is available only in some U.S. stores. Finally, online customers get exclusive promotions.

The eGift Card Program

Customers can buy Starbucks customized gift cards digitally (e.g., a gift card for a friend's birthday is auto delivered on the desired date). Payments can be made with a credit card, through PayPal, or the Starbucks app for mobile devices. The gift card is sent to the recipient via e-mail or postal mail.

The recipients can print the card and go shopping at a Starbucks physical store, transfer the gift amount to their Starbucks' card, or to a Starbucks gift card.

Loyalty Program

Like airlines and other vendors, the company offers a Loyalty Program (My Starbucks Rewards). Those who reach the gold level receive extra benefits. The program is managed electronically.

Mobile Payments

Customers can pay at Starbucks stores with prepaid (stored value) cards, similar to those used in transportation, or pay using the Starbucks mobile app from smartphones. Shoppers can download an app on their mobile device. Payment is made by selecting "touch to pay" and holding up the barcode on the device screen to a scanner at the register. The system is connected automatically to a debit or credit card. The system works only in company-owned stores.

Social Media Projects

Starbucks realized the importance of social media that uses Internet-based systems to support social interactions and user involvement and engagement (Chapter 7). Thus, it started several initiatives to foster customer relationships based on the needs, wants, and preferences of its existing and future customers. The following are some representative activities.

Exploiting Collective Intelligence

My Starbucks Idea (**mystarbucksidea.force.com**) is a platform in which a community of over 300,000 consumers and employees can make improvement suggestions, vote for the suggestions, ask questions, collaborate on projects, and express their complaints and frustrations. The community generated 70,000 ideas in its first year, ranging from thoughts on the company's rewards cards and elimination of paper cups to ways to improve customer service. The site also provides statistics on the ideas generated, by category, as well as their status (under review, reviewed, in the works, and launched). The company may provide incentives for certain generated ideas. For example, in June 2010, Starbucks offered $20,000 for the best idea concerning the reuse of its used coffee cups. This initiative is based on the technology of *collective intelligence*, also known as *crowdsourcing* (see Chapters 2 and 8), and is supported by the "Ideas in Action" blog. This blog is written by employees who discuss ideas submitted to **blogs.starbucks.com/blogs/Customer**.

Starbucks' Activities on Facebook

Starbucks maintains a strong social media presence on Facebook (**facebook.com/Starbucks**), with over 36 million "Likes" (as of March 2016). The company uploads videos, blog posts, photos, promotions, product highlights, and

special deals. The millions of people who "like" Starbucks on Facebook verify that the company has one of the most popular fan pages (see current statistics at **fanpagelist.com** and at **facebook.com/Starbucks**). Starbucks offers one of the best online marketing communication experiences on Facebook to date as well as mobile commerce engagements. Starbucks posts diversified information on its Facebook page, whether it is content, questions, or updates. The company also advertises on its Facebook page (e.g., contests, events, new products).

Starbucks' Presence on LinkedIn and Google+

Starbucks has a profile on LinkedIn site with over 667,000 followers (March 2016). It provides business data about the company, lists new hires in managerial positions, and advertises available jobs. Starbucks is also active on Google+. It provides business data about the company, shows employee profiles, and advertises available jobs. Note that Starbucks is regularly assessing the cost–benefit of advertising on social networks.

Starbucks' Activities on Twitter

In March 2016, Starbucks had over 11 million followers (Follow@starbucks) on Twitter (**twitter.com/starbucks**). Whenever the company has some new update or marketing campaign, the company posts a tweet (e.g., discounted drinks). By October 2013, Starbucks was the number one retailer to follow on Twitter. In November 2013, Starbucks gave away a $5 gift certificate to 100,000s of their customers who Tweeted a coffee to one of their friends or followers (see **blissxo.com/free-stuff/deals/cash-back-and-rebates/free-5oo-starbucks-gift-card**).

Starbucks' Activities on YouTube, Flickr, Pinterest, and Instagram

Starbucks has a presence on both YouTube (**youtube.com/Starbucks**) and Flickr (**flickr.com/Starbucks**), with a selection of videos and photos for viewing. It also runs advertising campaigns there. Finally, Starbucks has about 7.9 million followers on the photo-sharing company Instagram (**instagram.com/Starbucks**).

Starbucks Digital Network

When customers are at Starbucks, they have more than Wi-Fi, they get access to the Starbucks Digital Network from all major mobile devices, including tablets and smartphones (see **starbucks.com/coffeehouse/wireless-internet/starbucks-digital-network**). The Network, in partnership with Yahoo!, features free premium online content, such as news, entertainment, business, health, and even local neighborhood information channels. In 2014, Starbucks switched to Google Wi-Fi, instead of AT&T, to give their customers faster Wi-Fi and network speeds.

Early Adoption of Foursquare: A Failure

Not all Starbucks social media projects were successes. For example, the company decided to be an early adopter of geolocation by working with Foursquare (Chapter 7). The initiative simply did not work, and the project ended in mid-2010. The company experimented in the UK with a similar location company called Placecast. As of fall 2011, Starbucks had a better understanding of the opportunities and the limitations, so it may decide to try geolocation again with Facebook Places, or it may revive the Foursquare project.

The Results

Starbucks turned sales around by effectively integrating the digital and the physical worlds. In 2010, its operating income almost tripled ($1.437 billion versus $560 million in 2009) and so did its stock price. In 2011, the operating income reached $1.7 billion. Since then, the operating income is increasing rapidly. Sales are lifting due to digital and social media promotions.

The company's social media initiatives are widely recognized. In 2012, it was listed by *Fortune Magazine* as one of the top social media stars (per **archive.fortune.com/galleries/2012/fortune/1205/gallery.500-social-media.fortune/5.html**), and in 2008, it was awarded the 2008 Groundswell Award by Forrester Research. The site is very popular on Facebook where it has millions of fans, (sometimes more popular than pop icon Lady Gaga). Starbucks attributes its success to ten philosophical guidelines that drive its social media efforts.

Sources: Based on Brohan (2015), Panagiotaropoulou (2015), Straut (2015), Loeb (2013), Moth (2013), Allison (2013), Schoultz (2013), Welch and Buva (2015), **mystarbucksidea.force.com**, **blogs.starbucks.com/blogs/Customer**, and **starbucks.com** (accessed March 2016).

LESSONS LEARNED FROM THE CASE

The Starbucks.com case illustrates the story of a large retailer that is converting to be a digital and social enterprise. Doing business electronically is one of the major activities of e-commerce, the subject of this book. The case demonstrates several of the topics you will learn about in this chapter and throughout the book. These are:

1. There are multiple activities in EC, including selling online, customer service, and collaborative intelligence.

2. The case shows major benefits to both buyers and sellers. This is typical in EC.
3. The EC capabilities include the ability to offer products and services in many locations, including overseas, to many customers, individuals, and businesses. You can do so because you can have a larger customer base online, and people can buy from anywhere at any time.
4. In a regular store, you pay and pick up the merchandise or service. On Starbucks.com and other webstores, you order, pay, and the product is shipped to you. Therefore, order fulfillment needs to be very efficient and timely.
5. Being digital can be very useful, but a greater benefit can be achieved by extending it to be a socially oriented enterprise. Both approaches constitute the backbone of electronic commerce, the subject of this book.

In this opening chapter, we describe the essentials of EC, some of which were presented in this case. We present some of the drivers and benefits of EC and explain their impact on the technology. Special attention is provided to the emergence of the social economy, social networks, and social enterprises. Finally, we describe the outline of this book.

1.1 ELECTRONIC COMMERCE: DEFINITIONS AND CONCEPTS

As early as 2002, the management guru Peter Drucker (2002) forecasted that e-commerce (EC) would significantly impact the way that business is done. And indeed, the world is embracing EC, which makes Drucker's prediction a reality.

Defining Electronic Commerce

Electronic commerce (EC) refers to using the Internet and other networks (e.g., intranets) to purchase, sell, transport, or trade data, goods, or services. For an overview, see Plunkett et al. (2015). In addition, watch the video titled "What is E-Commerce?" at **youtube.com/watch?v=3wZw2IRb0Vg**. EC is often confused with e-business, which is defined next.

Defining E-Business

Some people view the term *commerce* as describing only buying and selling transactions conducted between business partners. If this definition of commerce were used, the term *electronic commerce* would be fairly narrow. Thus, many use the term *e-business* instead. **E-business** refers to a broader definition of EC, not just the buying and selling of goods and services, but conducting all kinds of business online such as servicing customers, collaborating with business partners, delivering e-learning, and conducting electronic transactions within organizations. However, others view e-business only as comprising those activities that do not involve buying or selling over the Internet, such as collaboration and intrabusiness activities; that is, it is a *complement* of the narrowly defined e-commerce. In its narrow definitions, e-commerce can be viewed as a subset of e-business. In this book, we use the broadest meaning of electronic commerce, which is basically equivalent to the broadest definition of e-business. The two terms will be used interchangeably throughout the text.

Major EC Concepts

Several other concepts are frequently used in conjunction with EC. The major ones are as follows.

Pure Versus Partial EC

EC can be either pure or partial depending on the nature of its three major activities: ordering and payments, order fulfillment, and delivery to customers. Each activity can be done physically or digitally. Thus, there are eight possible combinations as shown in Table 1.1. If all activities are digital, we have pure EC, if none are digital we have no EC, otherwise we have partial EC.

If there is at least one digital dimension, we consider the situation EC, but only partial EC. For example, purchasing a computer from Dell's website or a book from Amazon.com is partial EC, because the merchandise is physically delivered. However, buying an e-book from Amazon.com or a software product from Buy.com is pure EC, because ordering, processing, and delivery to the buyer are all digital. Note that many companies operate in two or more of the classifications. For example, Jaguar has a 3D application for self-configuration of cars online, prior to shopping (see Vizard 2013).

Table 1.1 Classifications of e-commerce

Activity	1	2	3	4	5	6	7	8
Ordering, payment	P	D	D	D	D	P	P	P
Order fulfillment	P	D	D	P	P	D	P	D
Delivery (shipment)	P	D	P	P	D	D	D	D
Type of EC	Non-EC	Pure EC	Partial EC					

P physical, *D* digital

EC Organizations

Purely physical organizations (companies) are referred to as **brick-and-mortar** (or **old economy**) **organizations**, whereas companies that are engaged only in EC are considered **virtual (pure-play) organizations. Click-and-mortar** (**click-and-brick**) **organizations** are those that conduct some EC activities, usually as an additional marketing channel. Gradually, many brick-and-mortar companies are changing to click-and-mortar ones (e.g., GAP, Target).

Electronic Markets and Networks

EC can be conducted in an **electronic market (e-marketplace)**, an online location where buyers and sellers conduct commercial transactions such as selling goods, services, or information. Any individual can also open a private market selling products or services online. Electronic markets are connected to sellers and buyers via the Internet or to its counterpart within organizations, an *intranet*. An **intranet** is a corporate or government internal network that uses Internet tools, such as Web browsers and Internet protocols. Another computer environment is an **extranet**, a network that uses Internet technology to link intranets of several organizations in a secure manner (see Online Tutorial T2).

SECTION 1.1 REVIEW QUESTIONS

1. Define EC and e-business.
2. Distinguish between pure and partial EC.
3. Define click-and-mortar and brick-and-mortar organizations.
4. Define electronic markets.
5. Define intranets and extranets.

1.2 THE ELECTRONIC COMMERCE FIELD: GROWTH, CONTENT, CLASSIFICATION, AND A BRIEF HISTORY

According to the U.S. Census Bureau (2016), e-commerce sales in 2015 accounted for over 50% of total sales of all manufacturing activities in the United States, over 25% of merchant wholesalers, 7.5% of all retailing (vs. 4.7% in 2011), and 2% of all sales in selected service industries. The grand total of EC in 2015 has been $4000 billion as seen in Figure 1.1. Notice the sharp increase in manufacturing compared to other sectors. In addition, note that EC is growing much faster than the total of all commerce by about 16–17% annually. For a more detailed breakdown, see the U.S. Census Bureau (2013) report as well as Plunkett et al. (2015).

There is a clear trend that online retail sales are taking business from traditional retailers. For example, Wilfred (2014) reported that during the 2013 holiday shopping season online shopping grew 10% a year versus 2.7% of traditional retailers. Today, even more people buy online.

According to *Ecommerce Europe*, September 5, 2012, European online retail sales will double to €323 billion by 2018.

The Content and Framework of E-Commerce

Classifying e-commerce aids understanding of this diversified field. In general, selling and buying electronically can be either business-to-consumer (B2C) or business-to-business (B2B). Online transactions are made between businesses and individual consumers in B2C, such as when a person purchases a coffee at **store.starbucks.com** or a computer at **dell.com** (see Online File W1.1). In B2B, business transactions

Figure 1.1 E-commerce as percent of total value: (2005–2013) (*Source*: **Census.gov/estats**, accessed March 2016)

are made online between businesses, such as when Dell electronically buys parts from its suppliers. Dell also collaborates electronically with its partners and provides customer service online e-CRM (see Online Tutorial T1). Several other types of EC will be described later in this chapter.

According to the U.S. Census Bureau (2013), the total EC shipments grew 16.5% in a year; ComScore reported that U.S. retail commerce online increased 17% in QI 2012 as compared to a year earlier. EC is growing in all areas. For example, Leggatt (2012) reported that in the UK Domino's Pizza online sales grew about 1000% between 2000 and 2012. Similar results can be found in many industries, companies, and countries (e.g., see periodic reports at ComScore and BizReport) and Ahmad (2014, an Infographic). E-commerce is exploding globally. According to a press release of **ecommerce-europe.eu/press** of May 23, 2013, European e-commerce grew by 19% in 2012 reaching €312 billion. According to Stanley and Ritacca (2014), e-commerce in China is exploding, reaching $600 billion by the end of 2013. Finally, in several developing countries EC is becoming a major economic asset (e.g., see Maitra 2013 for information on India).

An EC Framework

The EC field is diverse, involving many activities, organizational units, and technologies. Therefore, a framework that describes its contents can be useful. Figure 1.2 introduces one such framework.

As shown in the figure, there are many EC applications (top of figure), which will be illustrated throughout the book. To perform these applications, companies need the right information, infrastructure, and support services. Figure 1.2 shows that EC applications are supported by infrastructure and by the following five support areas (shown as pillars in the figure):

1. **People.** Sellers, buyers, intermediaries, information systems and technology specialists, other employees, and any other participants.
2. **Public policy.** Legal and other policy and regulatory issues, such as privacy protection and taxation, which are determined by governments. Included are technical standards and compliance.
3. **Marketing and advertising.** Like any other business, EC usually requires the support of marketing and advertising. This is especially important in B2C online transactions, in which the buyers and sellers usually do not know each other.
4. **Support services.** Many services are needed to support EC. These range from content creation to payments to order delivery.
5. **Business partnerships.** Joint ventures, exchanges, and business partnerships of various types are common in EC. These occur frequently throughout the *supply chain* (i.e., the interactions between a company and its suppliers, customers, and other partners).

The infrastructure for EC is shown at the bottom of the figure. *Infrastructure* describes the hardware, software, and networks used in EC. All of these components require good *management practices*. This means that companies need to plan, organize, motivate, devise strategy, and restructure processes, as needed, to optimize the business use of EC models and strategies.

Classification of EC by the Nature of the Transactions and the Relationships Among Participants

A common classification of EC is by the type of the transactions and the transacting members. The major types of EC transactions are listed below.

Business-to-Business (B2B)

Business-to-business (B2B) EC refers to transactions between and among organizations. Today, about 85% of EC volume is B2B. For Dell, the entire wholesale transaction is B2B. Dell buys most of its parts through e-commerce, and sells its products to businesses (B2B) and individuals (B2C) using e-commerce.

Business-to-Consumer (B2C)

Business-to-consumer (B2C) EC includes retail transactions of products or services from businesses to individual shoppers. The typical shopper at Amazon.com is of this type. Since the sellers are usually retailers, we also call this type **e-tailing**.

Consumer-to-Business (C2B)

In **consumer-to-business (C2B),** people use the Internet to sell products or services to individuals and organizations. Alternatively, individuals use C2B to bid on products or services. Priceline.com is a well-known organizer of C2B travel service transactions.

Intrabusiness EC

The **intrabusiness EC** category refers to EC transactions among various organizational departments and individuals in one company.

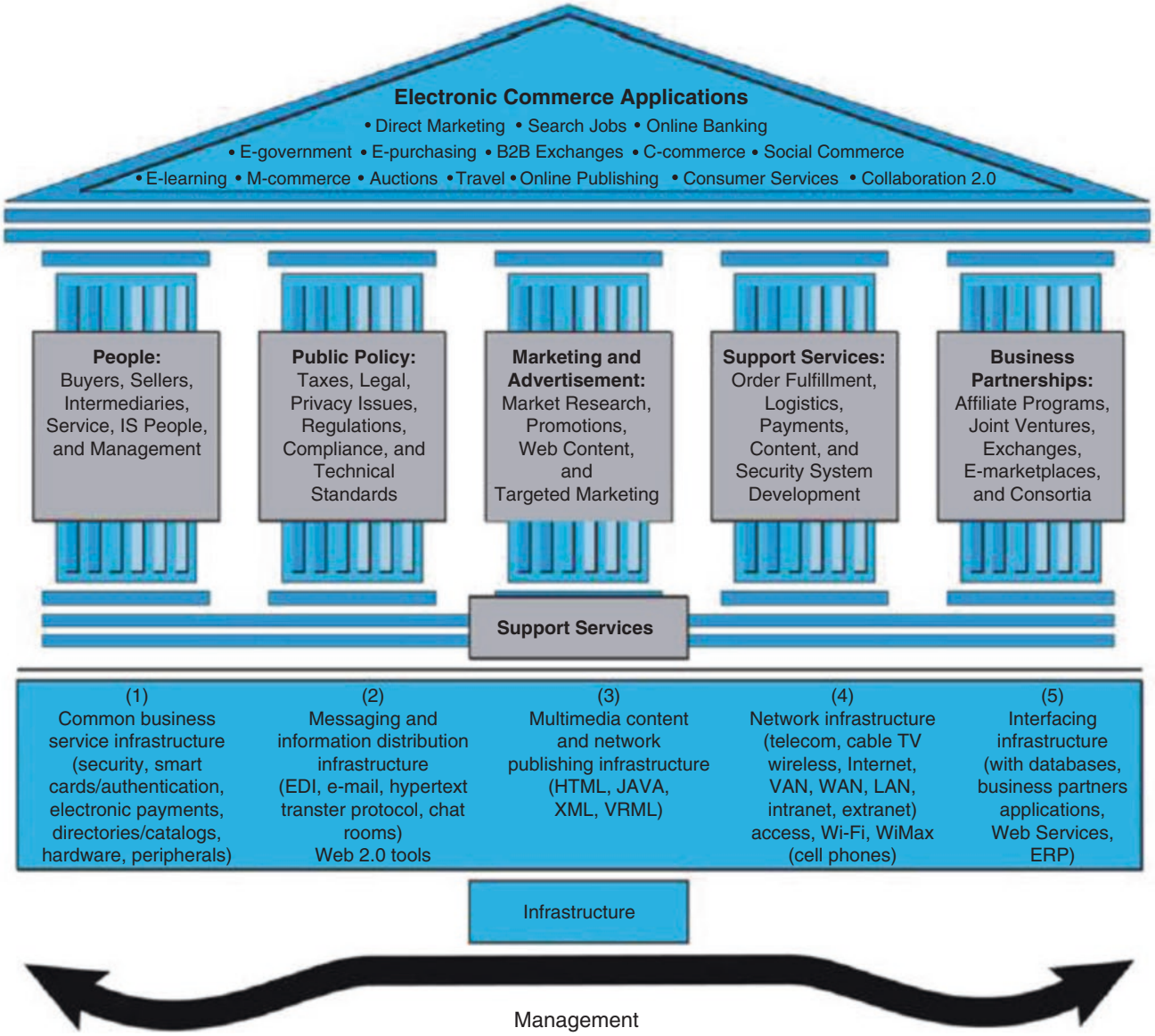

Figure 1.2 A framework for electronic commerce

Business-to-Employees (B2E)

The **business-to-employees (B2E)** category refers to the delivery of services, information, or products from organizations to their employees. A major category of employees is *mobile employees*, such as field representatives or repair employees that go on to customers. EC support to such employees is also called *business-to-mobile employees (B2ME).*

Consumer-to-Consumer (C2C)

In the **consumer-to-consumer (C2C)** EC category individual consumers sell to or buy from other consumers. Examples of C2C include individuals selling computers, musical instruments, or personal services online. EBay sales and auctions are mostly C2C as are the ads in Craigslist.

Collaborative Commerce

Collaborative commerce (c-commerce) refers to online activities and communications done by parties working to attain the same goal. For example, business partners may design a new product together.

E-Government

In **e-government** EC, a government agency buys or provides goods, services, or information from or to businesses (G2B) or from or to individual citizens (G2C). Governments can deal also with other governments (G2G).

The previous categories are illustrated in Figure 1.3. Many examples of the various types of EC transactions will be presented throughout this book.

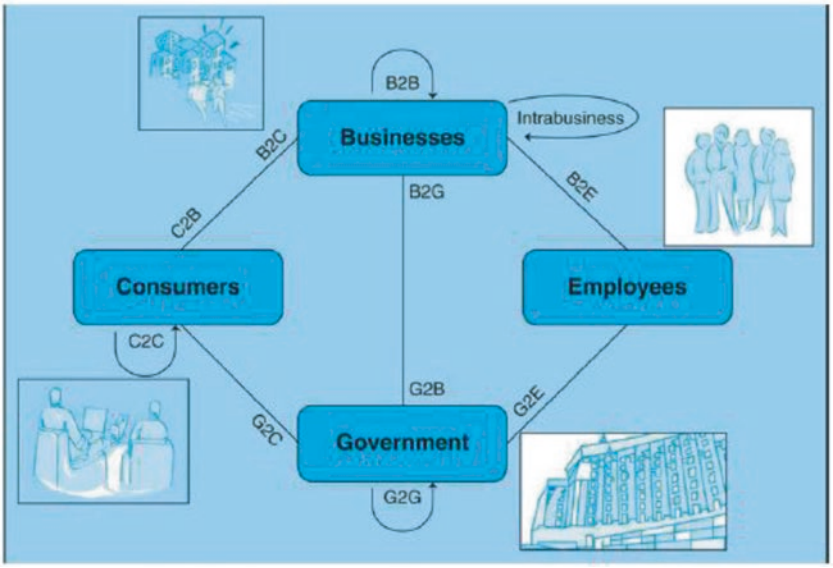

Figure 1.3 Categories of transactions in e-commerce

A Brief History of EC

The pioneering of e-commerce applications can be tracked to the early 1970s when money was transferred electronically, mostly among financial institutions (known as *electronic funds transfer [EFT]*), whereby funds could be routed electronically from one organization to another. However, the use of these applications was limited to large corporations, financial institutions, and a few other daring businesses. Then came *electronic data interchange (EDI)*, a technology used to enable the electronically transfer of routine documents. EDI later expanded from financial transactions to other types of transactions (see Online Tutorial T2 for more on EDI). More new EC applications followed, ranging from travel reservation systems to online stock trading.

The Internet appeared on the scene in 1969, as an experiment by the U.S. government, and its initial users were mostly academic researchers and other scientists. Some users started to place personal classifieds on the Internet. A major milestone in the development of EC was the appearance of the World Wide Web (The "Web") in the early 1990s. This allowed companies to have a presence on the Internet with both text and photos. When the Internet became commercialized and users began flocking to participate in the World Wide Web in the early 1990s, the term *electronic commerce* was introduced. EC applications rapidly expanded. A large number of so-called dot-coms, or *Internet start-ups*, also appeared. Today, all companies in the developing countries have presence on the Web. Many of these sites contain tens of thousands of pages and links. In 1999, the emphasis of EC shifted from B2C to B2B, and in 2001 from B2B to B2E, c-commerce, e-government, e-learning, and m-commerce. In 2005, social networks started to receive quite a bit of attention, as did m-commerce and wireless applications. As of 2009, EC added social commerce channels. An example is the increasing commercial activities on Facebook and Twitter. Given the nature of technology and Internet usage, EC will undoubtedly continue to grow, add new business models, and introduce change. More and more EC successes are emerging. For a comprehensive ready-reference guide to EC including statistics, trends, and in-depth profiles of hundreds of companies, see Plunkett et al. (2015) and **en.wikipedia.org/wiki/E-commerce**.

While looking at the history of EC, one must keep in mind the following:

The Global Nature of EC

EC activities can be seen between and within countries. As a matter of fact, the largest EC company in the word is Alibaba Group of China (see Chapter 2). See also Tse (2015).

The Interdisciplinary Nature of EC

From just the brief overview of the EC framework and classification, you can probably see that EC is related to several different disciplines. The major academic EC disciplines include the following: *accounting, business law, computer science, consumer behavior, economics, engineering, finance, human resource management, management, management information systems, marketing, public administration*, and *robotics*.

The Google Revolution

During its early years, EC was impacted by companies such as Amazon.com, eBay, AOL, and Yahoo!. However, since 2001 no other company has probably had more of an impact on EC than Google. Google-related Web searches are targeting advertisements much better than its competitors. Today, Google is much more than just a search engine; it employs many innovative EC models, is involved in many EC joint ventures, and impacts both organizational activities and individual lives. Google companies are organized under the "Alphabet" name.

Cyber Monday, Singles' Day

An interesting evidence for the growth of online shopping is the volume of shopping during Cyber Monday in the USA and Singles' Day in China (11/11). For the magnitude of Singles' Day in China, in the automotive industry see Li and Han (2013). See also *Ad Age* Staff (2013).

Social Commerce

The explosion of social media and networks, as well as Web 2.0 tools (e.g., wikis, blogs), resulted in new ways of conducting e-commerce by making it social. Several new and modified EC models were created, rejuvenating the field as described in several chapters in the book, especially in Chapter 7, and in Turban et al. (2016).

EC Failures

Starting in 1999, a large number of EC companies, especially e-tailing and B2B exchanges, began to fail. Well-known B2C failures include Drkoop, MarchFirst, eToys, and Boo. Well-known B2B failures include Webvan, Chemdex, Ventro, and Verticalnet. (Incidentally, the history of these pioneering companies is documented by David Kirch in his Business Plan Archive, **businessplanarchive.org**.) A survey by Strategic Direction (2005) found that 62% of dot-coms lacked financial skills, and 50% had little experience with marketing. Similarly, many companies failed to have satisfactory order fulfillment and enough inventory to meet the fluctuating and increasing demand for their products. The reasons for these and other EC failures are discussed in Chapters 3, 4, and 11. As of 2008, many start-ups related to Web 2.0 and social commerce started to collapse (see **blogs.cioinsight.com/it-management/startup-deathwatch-20.html**).

Does the large number of failures mean that EC's days are numbered? Absolutely not! First, the dot-com failure rate is declining sharply. Second, the EC field is basically experiencing consolidation as companies test different business models and organizational structures. Third, some pure EC companies, including giants such as Amazon.com and Netflix, are expanding operations and generating increased sales. Finally, the click-and-mortar model seems to work very well, especially in e-tailing (e.g., GAP, Walmart, Target, Apple, HP, and Best Buy).

For supplementary history, see **plunkettresearch.com/ecommerce-internet-technology-market-research/industry-and-business-data**.

EC Successes

The last few years have seen the rise of extremely successful EC companies such as eBay, Pandora, Zillow, Google+, Facebook, Yahoo!, Amazon.com, Pay Pal, Pinterest, VeriSign, LinkedIn, and E*TRADE. Click-and-mortar companies such as Cisco, Target, General Electric, IBM, Intel, and Schwab also have seen great success. Additional success stories include start-ups such as Alloy.com (a young-adult-oriented portal), Blue Nile (Chapter 2), Ticketmaster, Amazon.com, Net-a-Porter (Case 1.1), Expedia, Yelp, TripAdvisor, and GrubHub (Online File W1.2).

CASE 1.1: EC APPLICATION NET-A-PORTER: DRESS FOR SUCCESS

Will a woman buy a $2000 dress online without trying it on? Net-a-Porter (a UK online retailer, known as "the Net") bet on it and proved that today's women will purchase their dresses (for success) online, especially if the luxury clothing and accessories are international brands such as Jimmy Choo or Calvin Klein (see Pressler 2015).

The Opportunity

When talking about e-commerce (EC), most people think about buying online books, vitamins, CDs, or other commodity items. And this indeed was what people bought in the mid-1990s, when EC began. But in 2000, Natalie Massenet, a fashion journalist, saw an opportunity because of the success of luxury online stores such as Blue Nile (see Chapter 2) and the fact that professional women are very busy and willing to do more purchasing online.

The Solution

Natalie decided to open an online business for luxury fashion. She created a comprehensive, socially oriented, e-tailing site, naming it Net-a-Porter.

According to **net-a-porter.com**, some experts, and the company:

- Opened an e-tailing store
- Offered merchandise from over 350 top designers; most off-line stores offer a few dozen
- Offered its own designs in addition to others
- Arranged global distribution systems to over 170 countries
- Opened physical stores in London and New York to support the online business
- Arranged same day delivery in London and New York and overnight delivery elsewhere
- Organized very fast cycle time for producing and introducing new clothes and other products that match customers' preference
- Devised prediction methods of fashion trends based on customer feedback through social media
- Ran online fashion shows

- Developed superb inventory and sales tracking systems based on dashboards
- Offered an online fashion magazine
- Discovered what customers really want via social networks (Chapter 7) and fulfilled their needs
- Offered large discounts
- Developed a presence on Facebook and app for iPhone
- Has 630,000 followers on Google+ (February 2016)
- Has five million visitors each month (February 2016)
- Experiences 750,000 downloads per month on iPhone
- Started augmented reality shopping windows in several global cities as of 2012 (see **digitalbuzzblog.com/net-a-porter-augmented-reality-shopping-windows**). At this same site, you can watch the video "Window Shop" and download the Net-a-Porter iPhone/iPad app.

In 2010, the company started taking advantage of the social media environment that is changing the fashion industry.

The Results

Customers now come from over 170 countries and revenue and profits are increasing rapidly. Several million visitors come to the site every week. The "Net" became profitable after 1 year, a very rare case in e-tailing. During the economic crisis of 2009, the Net's total sales were up 45%, versus a 14% decrease for one of its major competitors (Neiman Marcus; Web and paper catalog sales). The company was so successful that luxury goods company Richemont Corp. purchased a 93% stake in the business. In October 2015, the company merged with the YOOX Group (**yooxgroup.com**).

In June 2010, when the company celebrated its 10th anniversary, it opened a new website dedicated to menswear. With success comes competition, and the Net's competitors include Bluefly (low prices), Shopbop (an Amazon.com company, but it lacks the Net's prestige), and high-end department stores with their own online stores (Nordstrom, Neiman Marcus). However, the Net has the highest prestige and growth rate. A major threat may come from eBay, which has been reaching out to high-end designers about creating their own virtual stores (hosted by eBay) where they can sell at fixed prices and also use auctions. Finally, note that in late 2010, Amazon.com created MYHABIT that offers designer brands at a discount. To stay on top of the competition, the Net is planning new ventures and expanding its business model to include children's clothes. Net-a-Porter is an example of the revolution that is occurring in the fashion industry. Another example is Polyvore, whose case is presented in Chapter 7. For details on these new business models, see **businessoffashion.com/2012/01/e-commerce-week-the-rise-of-new-business-models.html**.

Sources: Based on Pressler (2015), **en.wikipedia.org/wiki/YOOX_Net-a-Porter_Group** (accessed March 2016).

Questions

1. Why would you buy (or not buy) from Net-a-Porter?
2. Watch the video "The Future of Shopping" (**youtube.com/watch?v=_Te-NCAC3a4**). How would you integrate this development with Net-a-Porter?
3. List both the advantages and disadvantages of the Net's physical stores.
4. It is said that the Net is playing a significant role in transforming how designers reach customers. Explain why.
5. Read the benefits of EC to customers (Section 1.3). Which ones are the most relevant here?
6. What EC capabilities are helping the Net and its designers?
7. Analyze the competition in the high-end fashion market.
8. What is the importance of globalization in this case?
9. Imitators are springing up on all sides. Even eBay and Amazon.com are expanding their fashion e-tailing efforts. What strategy do you suggest for the Net?

SECTION 1.2 REVIEW QUESTIONS

1. List the major components of the EC framework.
2. List the major transactional types of EC.
3. Describe the major landmarks in EC history.
4. List some EC successes and failures.

1.3 DRIVERS AND BENEFITS OF E-COMMERCE

The tremendous explosion of EC can be explained by its drivers and characteristics, benefits, and by changes in the business environment.

The Drivers of E-Commerce

Although EC is only about 23 years old, it is expected to have non-stoppable growth and it expands consistently into new areas of our life. The question is why. What drives EC?

EC is driven by many factors depending on the industry, company, and application involved. The major drivers are shown in the self-explanatory Figure 1.4, together with the section and/or chapter where details are presented.

The Benefits of E-Commerce

There are many benefits of EC and they continue to increase with time. We elected to organize them in three categories:

EC provides benefits to *organizations, individual customers*, and *society*. These benefits are summarized in Table 1.2.

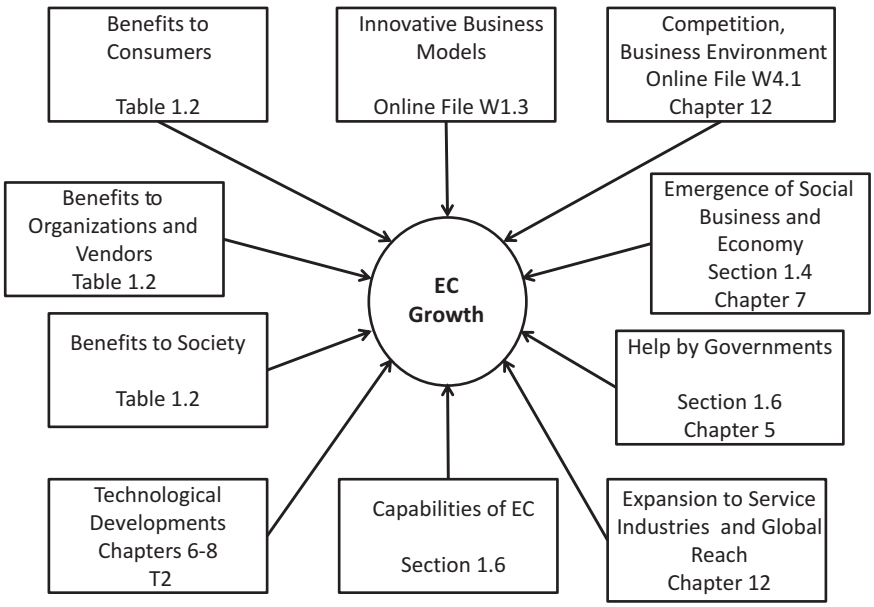

Figure 1.4 The major drivers of e-commerce growth

Table 1.2 Benefits of e-commerce

Benefit	Description
Benefits to organizations	
Global reach	Quickly locating customers and/or suppliers at reasonable cost worldwide
Cost reduction	Lower cost of information processing, storage, and distribution
Facilitate problem solving	Solve complex problems that have remained unsolved
Supply chain improvements	Reduce delays, inventories, and cost
Business always open	Open 24/7/365; no overtime or other costs
Customization/personalization	Make order for customer preference
Ability to innovate, use new business models	Facilitate innovation and enable unique business models
Lower communication costs	The Internet is cheaper than VAN private lines
Efficient procurement	Saves time and reduces costs by enabling e-procurement
Improved customer service and relationship	Direct interaction with customers, better CRM
Help SMEs to compete	EC may help small companies to compete against large ones by using special business models
Lower inventories	Using customization inventories can be minimized
Lower cost of distributing digitizable product	Delivery online can be 90% cheaper
Provide competitive advantage	Lower prices, better service
Benefits to consumers	
Availability	Huge selection to choose from (vendor, products, styles)
Ubiquity	Can shop any time from any place
Self-configuration	Can self-customize products
Find bargains	Use comparison engine
Real-time delivery	Download digital products
No sales tax	Sometimes; changing
Enable telecommuting	Can work or study at home or any place
Social interaction and engagement	In social networks
Find unique items	Using online auctions, collectible items can be found
Comfortable shopping	Shop at your leisure without pushy sales clerks bothering you
Benefits to society	
Enable telecommuting	Facilitate work at home; less traffic, pollution
More and better public services	Provided by e-government
Improved homeland security	Facilitate domestic security
Increased standard of living	Can buy more and cheaper goods/services
Close the digital divide	Allow people in rural areas and developing countries to use more services and purchase what they really like

Opportunities for Entrepreneurs

A major benefit of EC is the creation of opportunities to start a business in an unconventional ways. The new business models permit entrepreneurs to open businesses with little money and experience and grow them rapidly. Many entrepreneurs are making some big money online.

Example: Fish Flops
Madison Robinson was a 15-year-old ninth grader when she opened the business, both online and off-line. She designs the footwear herself. Madison uses her Twitter account and tweets about Fish Flops. After only two years of operation, the business became profitable enough to pay Madison's college expenses. For details, see Burke (2013).

EC as a Provider of Efficiency, Effectiveness, and Competitive Advantage

The benefits of EC may result in significant changes in the way business is conducted. These changes may positively impact corporate operations resulting in a competitive advantage for the firms using EC (e.g., see Khosrow-Pour 2013) as well as more efficient governments and nonprofit organizations.

SECTION 1.3 REVIEW QUESTIONS

1. List the major drivers of EC.
2. List five benefits each to customers, organizations, and society.
3. From your knowledge, describe some technological developments that facilitate EC.
4. Identify additional benefits to society.

1.4 SOCIAL COMPUTING AND COMMERCE

The first generation of EC involved mainly trading, e-services, and corporate-sponsored collaboration. Currently, we are moving into the second generation of EC, which we call E-Commerce 2.0. It is based on Web 2.0 tools, social media, social networks, and virtual worlds—all the offspring of social computing.

Social Computing

Social computing refers to a computing system that involves social interactions and behaviors. It is performed with a set of tools that includes blogs, wikis, social network services, and other *social software tools,* and social marketplaces (see Chapter 7). Whereas traditional computing systems concentrate on business processes, particularly transaction processing and increases in productivity, social computing concentrates on improving collaboration and interaction among people and on user-generated content. In social computing and commerce, people work together over the Internet, consult with specialists, and locate goods and services recommended by their friends.

Example: Social Computing Helps Travel
Advances in social computing impact travel operations and decisions. Travelers can share good travel experiences or warn others of bad experiences using sites such as **tripadvisor.com**. Special travel-oriented social networks such as WAYN are very popular among travelers.

In social computing, information is mostly generated by individuals and is available to all, usually for free. The major implementation tools of social computing are Web 2.0 and social media.

Web 2.0

The term *Web 2.0* was coined by O'Reilly Media in 2004. **Web 2.0** is the second generation of Internet-based tools and services that enables users to easily generate content, share media, and communicate and collaborate, in innovative ways. (For more details, see Edwards 2013.)

O'Reilly divided Web 2.0 into four levels and provided examples of each. For details, see Colby (2008). Karakas (2009) views Web 2.0 as a new digital ecosystem, which can be described through five C's: creativity, connectivity, collaboration, convergence, and community.

The major tools of Web 2.0 are described in Chapter 2, and the applications are described in most other chapters. In addition, browse **enterpriseirregulars.com/author/dion** for an open forum about the Internet, society, collective intelligence, and the future. For Web 2.0 definitions, explanations, and applications, see Shelly and Frydenberg (2010).

Social Media

The term social media has several definitions. A popular definition is that social media involves user-generated online text, image, audio, and video content that are delivered via Web 2.0 platforms and tools. This media is used primarily for social interactions and conversations such as sharing opinions, experiences, insights, and perceptions, and for online collaboration. Therefore, it is a powerful force for socialization. A key element is that users produce, control, and manage content. Additional definitions, descriptions, and references, and a framework are provided in Chapters 2 and 7 and in Turban et al. (2016).

The Difference Between Social Media and Web 2.0

Note that the concept of Web 2.0 is related to the concept of social media; many people equate the two terms and use them interchangeably. However, some people point to the differences. While social media uses Web 2.0 and its tools and technologies, the social media concept includes the philosophy of connected people, the interactions among them, the social support provided, the digital content that is created by users, and so forth.

Example: How Oprah Is Using Social Media to Build Her Business

According to Bertelsen (2014), Oprah Winfrey is integrating social media activities with everything she does, to encourage interactions of people with different platforms (e.g., Facebook, Twitter). Oprah is rewarding people based on their online engagement (e.g., posting comments). She is using Facebook polls, and getting bloggers involved. Oprah is also actively using Twitter to interact with her followers.

Social Networks and Social Network Services

The most interesting e-commerce application in recent years has been the emergence of social and enterprise social networks. Originating from online communities, these networks are growing rapidly and providing many new EC initiatives, revenue models, and business models (see **sustainablebrands.com/news_and_views/blog/13-hot-business-model-innovations-follow-2013**).

A **social network** is a social entity composed of nodes (which are generally individuals, groups, or organizations) that are connected by links such as hobbies, friendship or profession. The structures are often very complex.

In its simplest form, a social network can be described by an image of the nodes and links. The network can also be used to describe Facebook's *social graph* (see description on Facebook.com).

Social Networking Services

Social networking services (SNSs), such as LinkedIn and Facebook, provide and host a Web space for people to build their homepages for free. SNSs also provide basic support tools for conducting different activities and allow many vendors to provide apps. Social networks are people oriented, but increasingly are used for commercial purposes also. For example, many performers, notably Justin Bieber, were discovered on YouTube. Initially, social networks were used solely for social activities. Today, corporations have a great interest in the business aspects of social networks (e.g., see **linkedin.com**, a network used for recruiting, and Facebook for advertising).

The following are examples of representative social network services:

- **Facebook.com**: The most visited social network website.
- **YouTube.com** and **metacafe.com**: Users can upload and view video clips.
- **Flickr.com**: Users share and comment on photos.
- **LinkedIn.com**: The major enterprise-oriented social network.
- **Habbo.com**: Entertaining country-specific sites for kids and adults.
- **Pinterest.com**: Provides a platform for organizing and sharing images.
- **Google+ (plus.google.com)**: A business-oriented social network.
- **MySpace.com**: Facilitates socialization and entertainment for people of all ages.
- **Instagram.com**: Provides a platform for sharing photos and videos.

Social Networking

We define **social networking** as the execution of any Web 2.0 activity, such as blogging or having a presence in a social network. It also includes all activities conducted in social networks.

Enterprise Social Networks

Business-oriented social networks can be public, such as LinkedIn.com. As such, they are owned and managed by an independent company. Another type of business-oriented social network is private, owned by corporations and operated inside them. These are known as *enterprise social networks* (e.g., My Starbucks Idea). These can be directed toward customers or company employees.

Example: A Customer-Oriented Enterprise Social Network

Carnival Cruise Lines sponsors a social networking site (**carnival.com/funville**) to attract cruise fans. Visitors use the site to exchange opinions, organize groups for trips, and much more. It cost the company $300,000 to set up the site, but the initial cost was covered by increased business within a year.

Social Commerce

Social commerce (SC), also known as *social business*, refers to e-commerce transactions delivered via social media. Social commerce is considered a subset of e-commerce by some. More specifically, it is a combination of e-commerce, e-mar-

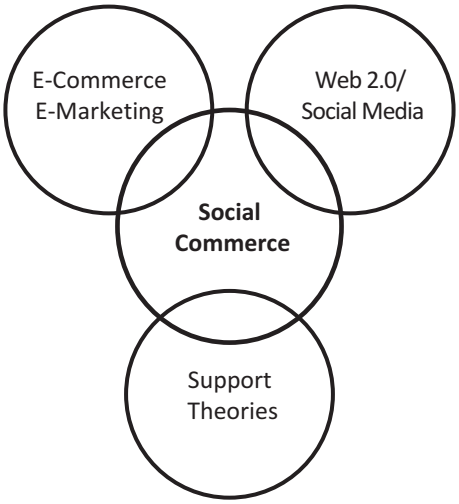

Figure 1.5 The foundation of social commerce

keting, the supporting technologies, and social media content. This definition is illustrated in Figure 1.5. The figure shows that social commerce is created from the integration of e-commerce and e-marketing using Web 2.0/social media applications. The integration is supported by theories such as social capital, social psychology, consumer behavior, and online collaboration, resulting in a set of useful applications that drive social commerce.

We will return to social commerce in Chapter 7.

The following are some examples of social commerce.

- Hilton Garden Inn introduced in 2016 Instagram-based photo map (GFI Travel Guide) to assist in advertising their hotels.
- Dell Computer claims to have made $6.5 million in 2 years by selling computers on Twitter. Also, Dell generates ideas from community members at its *Idea Storm* site.
- Procter & Gamble sells its Max Factor brand cosmetics on Facebook.
- Disney allows people to book certain tickets on Facebook without leaving the social network.
- PepsiCo gives live notifications when its customers are close to physical stores (grocery, restaurants, gas stations) that sell Pepsi products. Then, PepsiCo sends coupons and discount information to the customers.
- Starbucks is using extensive promotions on Facebook including generating ideas from the members via its My Starbucks Idea website (see the opening case for details).
- Mountain Dew attracts video game lovers and sport enthusiasts via Dewmocracy contests. The company also uses the most dedicated community members to contribute ideas. The company used Facebook, Twitter, and YouTube to interact with consumers and engage them.
- In 2010, Target used Twitter to promote their fall fashion show in New York with videos and ads. The show was streamed live on Facebook.
- Levi's advertises on Facebook based on "what people think their friends would like."
- Wendy's uses Facebook and Twitter to award $50 gift cards to people who have the funniest and quirkiest responses to Wendy's published challenges online.

Overall, the vast majority of U.S. companies have a presence on Facebook (see **emarketer.com** for periodic reports). For more applications, see Chapter 7 and Turban et al. (2016). For a free guide, go to **pixtree.com/shoppable-galleries**.

The Major Tools of Web 2.0

Web 2.0 uses dozens of tools such as wikis, RSS feeds, blogs, and microblogs (e.g., Twitter). With microblogging, you can transmit short messages (up to 140 characters) to a list of recipients via the Internet and wireless or wireline devices. As of 2009, Twitter became a major Web 2.0 tool with diversified business applications. Web 2.0 tools are described in Edwards (2013).

SECTION 1.4 REVIEW QUESTIONS

1. Define social computing and list its characteristics.
2. Define Web 2.0 and list its attributes.
3. Define social networks.
4. Describe the capabilities of social network services (SNSs).
5. Describe Facebook. Why is it so popular?
6. What is an enterprise social network?
7. Define social commerce.

1.5 THE DIGITAL AND SOCIAL WORLDS: ECONOMY, ENTERPRISES, AND SOCIETY

E-commerce, including E-Commerce 2.0 is facilitated by developments in the digital and social economy. For an overview, see videos titled "Did You Know" of the latest updated information.

The digital revolution is upon us. We see it every day at home and work, in businesses, schools, hospitals, on the roads, in entertainment. For an overview, see Sidhu (2015). Next, we describe three elements of the digital world: economy, enterprises, and society.

The Digital Economy

The **digital economy**, also known as the *Internet economy*, is an economy based on online transactions, mostly e-commerce. It includes digital wireline or wireless communication networks (e.g., the Internet, intranets, extranets, and VANs), computers, software, and other related information technologies. This digital economy displays the following characteristics:

- Many digitizable products—books, databases, magazines, information, electronic games, and software—are delivered over a digital infrastructure anytime, anywhere in the world, interconnected by a global grid. We are moving from analog to digital, even the media is going digital (TV as of February 2009).
- Information is transformed into a commodity.
- Financial transactions are now digitized and chips are embedded in many products (e.g., cameras, cars). Knowledge is codified.
- Work and business processes are organized in new and innovative ways.
- Disruptive innovation is occurring in many industries (see Manyika et al. 2013).

Table 1.3 summarizes the major characteristics of the digital economy.

The digital revolution also enables many innovations, and new ones appear almost daily, improving business processes and productivity. The digital revolution provides the necessary technologies for EC and creates major changes in the business environment, as described in Section 1.12.

Table 1.3 Major characteristics of the digital economy

Area	Description
Globalization	Global communication and collaboration; global electronic marketplaces and competition
Digitization	Music, books, pictures, software, videos, and more are digitized for fast and inexpensive storage and distribution
Speed	A move to real-time transactions, thanks to digitized documents, products, and services. Many business processes are expedited by 90% or more
Information overload and intelligent search	Although the amount of information generated is accelerating, intelligent search tools can help users find what people need
Markets	Markets are moving online. Physical marketplaces are being replaced or supplemented by electronic markets; new markets are being created, increasing competition
Business models and processes	New and improved business models and processes provide opportunities to new companies and industries
Innovation	Digital and Internet-based innovations continue at a rapid pace. More patents are being granted than ever before
Obsolescence	The fast pace of innovation creates a high rate of obsolescence
Opportunities	Opportunities abound in almost all aspects of life and operations
Fraud	Criminals employ a slew of innovative schemes on the Internet. Cybercons are everywhere
Wars	Conventional wars are changing to cyberwars or are complemented by them
Organizations	Organizations are moving to digital enterprises and social businesses

Sharing Economy

Sharing economy refers to an economic system constructed around the concept of sharing goods and services among the participating people. Also known as "collaborative consumption" and "collaborative economy" such systems appear in different forms and frequently use information technologies in their operations. A well-known example is car sharing. The essentials of this concept are described by Buczynski (2013). For an overview, see Howard (2015).

The major benefits for participants are cost reduction for buyers and the ability to sell more for sellers. Societal benefits include reduction of carbon footprint (e.g., in ride sharing), increase recycling, and increase social interactions. For comprehensive coverage, see **en.wikipedia.org/wiki/sharing_economy**.

Related to the shared economy is the distributed economy where Uber, Airbnb, and crowdsourcing operate (Guides 2015).

Sharing Economy and E-Commerce

Several EC models and companies are based on the concept of the sharing economy. Examples include Uber (for ride sharing), Yerdle (a sharing economy free marketplace), Kickstarter (for crowdfunding), Krrb (a P2P marketplace), and Knok and Love Home Swap for home swapping. Money lending is growing rapidly (lending clubs). Vacation rentals are a large area where home and condo owners provide short-term rentals possibly for an exchange or renting (e.g., see Airbnb, HomeAway, and VRBO).

The Social Impact

The digital revolution is accompanied by social impacts that resulted in part by improved communication and collaboration tools offered by social media. For example, smartphones reduce the digital divide. In addition to productivity improvement in the economy, one can see some major social changes, such as the mass participation in social networks. One impact is the creation of the *social enterprise* (see **centreforsocial-enterprise.com/what-is-social-enterprise**).

The Apps Society

New apps change the way that people communicate, work, and play. People are looking for apps for thousands of new uses.

Example: Swedish Farmers Go Online

According to Willgren (2013), traditional farmers in Sweden created a social network called "Min Farm (My Farm)." The network allows communication between the farmers and their customers. It also allows people that grow their own food to tell their stories and ask for advice. Customer can visit farms and do some shopping there; they can also order online. The network promotes self-sustainability.

The Digital Enterprise

One of the major impacts of EC is the creation of the digital enterprise concept that accompanies the social enterprise.

The term *digital enterprise* has several definitions. It usually refers to an enterprise, such as Amazon.com, Google, Facebook, or Ticketmaster, which uses computers and information systems to automate most of its business processes. The **digital enterprise** is a new business model that uses IT to gain competitive advantage by increasing employee productivity, improving efficiency and effectiveness of business processes, and better interactivity between vendors and customers. The major characteristics of a digital enterprise are listed in Table 1.4, where they are compared with those of a traditional enterprise. See also Olanrewaju et al. (2014).

Note that the term *enterprise* refers to any kind of organization, public or private, small or large. An enterprise can be a manufacturing plant, a hospital, a university, a TV network, or even an entire city. They are all moving toward being digitized.

A digital enterprise uses networks of computers in EC to facilitate the following:

- All business partners are reached via the Internet, or a group of secured intranets, called an extranet, or value-added private communication lines.
- All internal communication is done via an intranet, which is the counterpart of the Internet inside the company.

Most companies' data and EC transactions are done via the Internet and extranets. Many companies employ a **corporate portal**, which is a gateway for customers, employees, and partners to reach corporate information and to communicate with the company.

A key concern of many companies today is how to change themselves into digital (or at least partially digital) enterprises.

The concept of the digital enterprise is related to the smart and intelligent enterprise systems.

Table 1.4 The digital versus brick-and-mortar company

Brick-and-mortar organizations	Digital organizations (enterprises)
Selling in physical stores	Selling online
Selling tangible goods	Selling digital goods online as well
Internal inventory/production planning	Online collaborative inventory forecasting
Paper catalogs	Smart electronic catalogs
Physical marketplace	Electronic marketplace
Use of telephone, fax, VANs, and traditional EDI	Use of computers, smartphones, the Internet, and extranets and EDI
Physical auctions, infrequently	Online auctions, everywhere, any time
Broker-based services, transactions	Electronic infomediaries, value-added services
Paper-based billing and payments	Electronic billing and payments
Paper-based tendering	Electronic tendering (reverse auctions)
Push production, starting with demand forecasting	Pull production, starting with an order (build-to-order)
Mass production (standard products)	Mass customization, build-to-order
Physical-based commission marketing	Affiliated, virtual marketing
Word-of-mouth, slow and limited advertisement	Explosive viral marketing, in particular in social networks
Linear supply chains	Hub-based supply chains
Large amount of capital needed for mass production	Less capital needed for build-to-order; payments can be collected before production starts
Large fixed cost required for plant operation	Small fixed cost required for smaller and less complex plant operation
Customers' value proposition is frequently a mismatch (cost > value)	Perfect match of customers' value proposition (cost ≤ value)

Smart and Intelligent Enterprise Systems

IBM is a leading force in developing smart (or intelligent) computing systems (other companies include SAP, Intel, Oracle, Google, and Microsoft). IBM provides software and knowledge to digital enterprises (including cities). See **ibm.com/smarterplanet/us/en**.

Smart Computing and Integrated Expertise

A major part of IBM's project is based on cloud computing (see Online Tutorial T2). The project created software for efficient, easy to use and flexible computing systems that include a built-in pattern of expertise. The integrated systems are known as "IBM PureFlex" and "IBM PureApplication." For details, see **ibm.com/ibm/puresystems/us/en**. These systems, per IBM, are changing the economics of computing by:

- Helping reduce time-to-market
- Conserving resources and reducing costs

- Consolidating diverse computer system components and applications
- Improving security and reducing human error

All of these contribute to IBM's Smarter Commerce efforts.

The Social Business (Enterprise)

The concept of social business has several definitions and characteristics. We present only a few of them.

The Social Business Forum's Definition

The concept of social business was developed decades ago and was not related to computers. Today, the Social Business Forum defines **social business** as "an organization that has put in place the strategies, technologies and processes to systematically engage all the individuals of its ecosystem (employees, customers, partners, suppliers) to maximize the co-created value." See **2013.socialbusinessforum.com/social-business-manifesto**. The Forum also discusses the implication of this definition and its relevance inside, across, and outside organizations. Note that the efficient creation of value using technology is emphasized. The Forum conducts annual conferences.

IBM's Approach

IBM has been recognized by the research company IDC as the market share leader in social software platform providers. IBM and IDC include in their joint definition the following characteristics: use of emerging technologies such as social software, social-oriented organizational culture, and improvements of business processes. The IBM effort also concentrates on improved collaboration. The basic idea is that social media networks and social customers require organizations to drastically change the way they work to become a social business that can exploit the opportunities created by the digital and social revolutions. IBM is helping organizations become social businesses. (For examples, see **ibm.com/social-business/us/en** and **ibm.com/smarterplanet/global/files/us__en_us__socialbusiness__epw14008usen.pdf**.) IBM has an extensive "social business video library"; two interesting videos are recommended for a better understanding of the concept.

1. "How Do You Become a Social Business"—by Sandy Carter from IBM (3:50 min) at **youtube.com/watch?v=OZy0dNQbotg**.
2. "Social Business @ IBM"—An Interview with Luis Suarez (8:50 min) at **youtube.com/watch?v=enudW2gHek0**.

(In addition, see slide shows embedded in Taft (2012a, b) used in Team Assignments #4 at the end of this chapter. Both are useful for understanding of the concept).

The Social Enterprise

The concept of social business is frequently equated to and sometimes confused with the term *social enterprise*. Many use the two terms interchangeably. The main goal of a **social enterprise** is to focus on social issues. These enterprises generate revenue. The profits do not go to owners and shareholders, but are put back into the company and used toward building positive social change. The Social Enterprise Alliance provides details at **se-alliance.org/why**. It seems that the above definition emphasizes the social goals.

The Digital Revolution and Society

The final, and perhaps most important, element of the *digital world* is people and the way they work and live. Clearly, the digital revolution has changed almost any activity one can think of—work, play, shopping, entertainment, travel, medical care, education, and much more. Just think about your digital phone, camera, TV, car, home, and almost anything else. It is only natural that people are utilizing technology and EC at an increasing rate. Let us take a look at some examples:

- Google has developed cars that drive themselves automatically in traffic (autonomous vehicles). The cars are being tested in several states, including California, and were approved in the state of Nevada in the summer of 2012. See Sparkes (2014) and Bridges and Sherman (2016) on how these will change the world. For a comprehensive discussion, see Bridges and Sherman (2016). For an overview and potential benefits, including safety, see Neckermann (2015). As of 2014, self-driving cars are running in several cities. For details, see Thomas (2014). See also Chapter 6.
- AeroMobile is planning a flying car for 2017 that will have a full complement of e-business features (see Smith 2015).
- As of 2008, high school girls are able to solicit feedback from their friends regarding dozens of different prom dresses that have been displayed by Sears on Facebook.
- Washers and dryers in some college dorms are controlled via the Internet. Students can sign in at **esuds.net** or use their smartphone to check the availability of laundry machines. Furthermore, they can receive e-mail or SMS alerts when their wash and dry cycles are complete. Some systems can even inject premeasured amounts of detergent and fabric softener at the right cycle time.

- Hailing a taxi in South Florida and other major cities is much easier today. As of August 2012 you can e-hail taxi if you have a smartphone with an application by ZABCAB (**zabcab.com**). All you have to do is to push one button. Your exact location (on a map) will appear automatically on the portable device screen of all subscribing taxi drivers. There is no cost for the user. Over 500 million active users download songs, games, and videos on Apple's iTunes store. (A selection of over 50 million songs, TV episodes, etc.). The store also serves 575 million mobile devices users. Total revenue is estimated to reach $11 billion in 2016. The store is considered the most popular music store in the world. Since its inception in 2003, it sold over 30 billion songs by spring 2016. At the same time, the iPhone store offered over 1.1 million apps.
- Ford Company is using "My Ford Touch" system to calculate the fastest, shortest, and most fuel-efficient way to get from a given place to a destination. The system charts a route that avoids congestion (based on historical and real-time traffic data). Results are shown on a dashboard. Initial deployment was in the 2012 model of the Ford Focus.
- A new Japanese hotel is staffed entirely by robots (see Moscaritolo 2015).
- As of 2014, guests in several Starwood Hotels & Resorts can enter their rooms by using a smartphone as a room key.
- An international research project is developing a computerized system that enables monitoring patients at home in real time, conducting a diagnosis, and providing medical advice. The objective is to reduce traffic to medical facilities while increasing the quality of care. The project is managed in Israel with collaboration of experts from several European countries. For details, see **haifa.ac.il/index.php/en**.
- Union Pacific, the largest U.S. railroad company, is using a large number of sensors on their trains and other equipment to collect data that is transmitted via wireless and wireline networks to a data center. There an analysis is performed to determine optimal preventive maintenance by using *predictive analytics*. Over 10 billion data items were collected in 2011 alone. The analysis increased the annual revenue by $35 million. For details, see Murphy (2012).
- Water loss involving many influencing variables in the Valley of the Moon Water District in California has been considerably reduced by using smart analytical computing from IBM.
- Supermarket shoppers in Finland are using camera-equipped smartphones that can scan the bar code of an item to find its ingredients, nutrient value, and exercise time needed to burn the consumed calories.
- Bicycle computers (by Bridgestone Cycle Co.) can automatically keep track of your travel distance, speed, time, and calorie consumption. For cycling communities, see **bikewire.net** and **cyclingforum.com**.
- Champions of the World Series of Poker used to be people in their 50s and 60s who spent years playing the game to gain the experience needed to win. But in 2009, Joe Cada from the USA won the main event at the World Series of Poker, at the age of 21. To gain experience quickly, Cada plays extensively online. Joe McKeehen won in 2015, at the age of 24.

The above list can be extended to hundreds or even thousands of items. For more applications, see Pepitone (2012).

Disruptive Impacts

Digital technologies in general and EC and related technologies such as m-commerce and social commerce may have a disruptive impact on economies, industries, business models, and people (see the "Disruptive Technologies" video of 2013 at **mckinsey.com/insights/high_tech_telecoms_internet/disruptive_technologies**. See also McCafferty (2015). For a 2014 video interview of MIT's Andrew McAfee and McKinsey's James Manyika titled "Why Every Leader Should Care about Digitization and Disruptive Innovation," see **mckinsey.com/business-functions/business-technology/our-insights/why-every-leader-should-care-about-digitization-and-disruptive-innovation**.

The Social Customer

An important component in the digital society is the *social customer*. **Social customers** (sometimes called *digital customers*) are usually members of social networks who share opinions about products, services, and vendors, do online social shopping, and understand their rights and how to use the wisdom and power of social communities to their benefit. The number of social customers is increasing exponentially due to wireless shopping and new online shopping models and opportunities (Chapter 7). The highlights of the social customers are shown in Figure 1.6.

As the figure illustrates, social customers expect better service, are willing to provide feedback, product reviews, and connect with like-minded peers. This new behavior pattern

Being connected, customers realized that they could ask more from companies and share opinions about products and services

Web 2.0 stimulated fundamental changes in consumer behavior

Interactions between customer and brands starting earlier and never ending

New behavior patterns demand a new strategy, better segmentation, new channels and targeted messages and review of current customer facing business processes

Figure 1.6 The social customer (*Source*: Courtesy of F. Cipriani, "Social CRM: Concept, Benefits, and Approach to Adopt," November 2008. **slideshare.net/fhcipriani/social-crm-presentation-761225** (Accessed March 2016; used with permission)

requires a new strategy for both marketing communication and customer service. The social customer is participatory, and has active involvement in the shopping process both as a buyer and as an influencer. Individuals are influenced by friends, friends of friends, and friends of friends of friends. Merchants must understand how these consumers differ from conventional customers, and therefore use appropriate e-commerce marketing strategy as well as superb customer service (e.g., see Turban et al. 2016). Procedures, guidelines, and software are publically available for social CRM (e.g., see **en.wikipedia.org/wiki/Social_CRM**).

IBM's Smarter Commerce initiative is focusing on the digital customer. IBM is developing new software and services that deliver intelligence-guided customer experience (e.g., personalization and targeted advertising based on cloud computing analytics).

SECTION 1.5 REVIEW QUESTIONS

1. Define the digital revolution and list its components.
2. List the characteristics of the digital economy.
3. What is the social economy?
4. Define a digital enterprise and relate it to social business.
5. Describe the social enterprise.
6. Compare traditional and digital enterprises.
7. Describe the digital society.
8. Describe the social customer.
9. Visit **packdog.com** and **entirelypets.com/dogtoys.html**. Compare the two sites and relate their contents to the digital society.

1.6 ELECTRONIC COMMERCE BUSINESS MODELS

One of the major characteristics of EC is that it facilitates the creation of new business models. A **business model** describes the manner in which business is done to generate revenue and create value. This is accomplished by attaining organizational objectives. A key area is attracting enough customers to buy the organization's products or services. Several different EC business models are possible, depending on the company, the industry, and so on. Business models can be found in existing businesses as well as in proposed ones. See Lazazzera (2015).

Note: The January–February 2011 issue of *Harvard Business Review* is dedicated to business model innovations (five articles), including several topics related to e-commerce.

The Structure and Properties of Business Models

A comprehensive business model (for a proposal company) may include some or all of the following components illustrated in Figure 1.7.

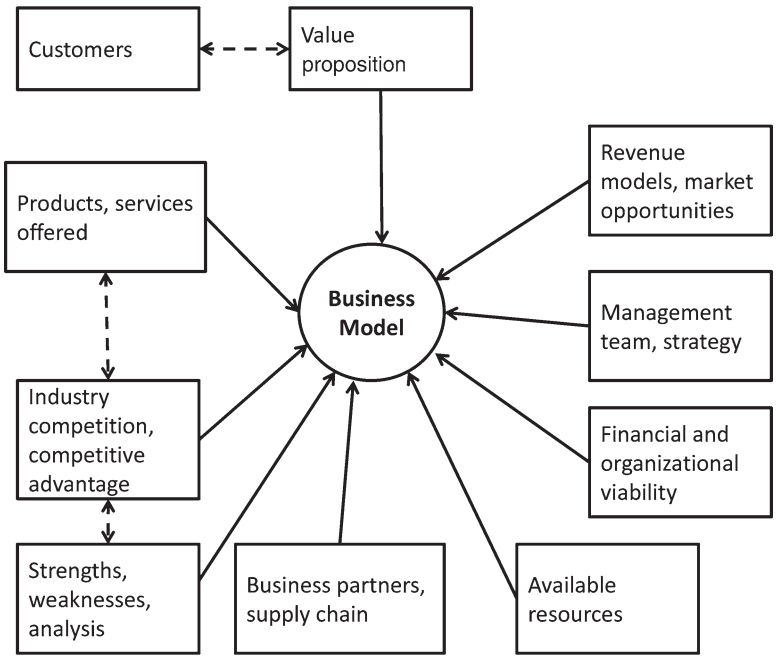

Figure 1.7 The major components of a business model

- A description of the *customers* to be served and their *value proposition*. Also, how these customers can be reached and supported.
- A description of all *products* and *services* the business plans to deliver. Also, what the differentiating aspects of the products are.
- The company's growth strategies.
- A description of the required *business process* and the distribution infrastructure (including human resources).
- A list of the *resources* required, their cost and availability (including human resources).
- A description of the organization's *supply chains*, including *suppliers* and other *business partners*.
- The value-chain structure.
- The relevant markets with a list of the major competitors and their market share. Also, market strategies and strengths/weaknesses of the company.
- The competitive advantage offered by the business model including pricing and selling strategies.
- The anticipated organizational changes and any resistance to change.
- A description of the revenues expected (*revenue model*), sources of funding, and the *financial viability*.

Models also include a *value proposition,* which is a description of the benefits of using the specific model (tangible and intangible), both to the customers and to the organization. A detailed discussion and examples of business models and their relationship to business plans is presented at **en.wikipedia.org/wiki/Business_model**.

This chapter presents two of the models' elements: *revenue models* and *value propositions*.

Revenue Models

A revenue model specifies how the organization, or an EC project, will generate revenue. For example, the revenue model for Net-a-Porter shows revenue from online sales of luxury dresses. The major revenue models are shown in the shaded area that follows.

Sales. Companies generate revenue from selling products or services on their websites. An example is when Net-a-Porter, Starbucks, Amazon.com, or Godiva sells a product online.

Transaction Fees. Commissions are based on the volume of transactions made. For example, when a homeowner sells a house, he or she typically pays a

transaction fee to the broker. The higher the value of the sale, the higher the total transaction fee. Alternatively, transaction fees can be levied *per transaction*. With online stock trades, for example, there is usually a fixed fee per trade, regardless of the volume.

Subscription Fees. Customers pay a fixed amount, usually monthly, to get some type of service. An example would be the fee you pay to an Internet access provider (fixed monthly payments).

Advertising Fees. Companies charge others for allowing them to place a banner on their sites (see Chapter 4).

Affiliate Fees. Companies receive commissions for referring customers to certain websites. A good program is available at Amazon.com.

Licensing Fees. Another revenue source is licensing fees (e.g., see **progress.com/datadirect-connectors**). Licensing fees can be assessed as an annual fee or a per usage fee. Microsoft receives fees from each workstation that uses Windows NT, for example.

Other Revenue Sources. Some companies allow people to play games for a fee or to watch a sports competition in real time for a fee (e.g., see **espn.go.com**).

A company uses its *revenue model* to describe how it will generate revenue and its *business model* to describe the *process* it will use to do so.

Innovative Revenue Models for Individuals

The Internet allows for innovative revenue models, some of which can be utilized even by individuals, as demonstrated by the following example.

Example: Buy Low–Sell High. This strategy has been known for generations, but now you have a better chance. How about buying stuff cheap on Craigslist (or other online classified ad sites) and resell it for a 50–200% profit at an auction on eBay? Try it, you might make money. Some people make it even bigger. The person who bought the domain name **pizza.com** for $20 in 1994 sold it for $2.6 million in April 2008 (one of the many he purchased). The revenue model can be part of the value proposition or it may supplement it.

Value Proposition

Business models also include a value-proposition statement. A **value proposition** refers to the benefits, including the intangible ones that a company hopes to derive from using its business model. In B2C EC, for example, the *customer value proposition* defines how a company's product or service fulfills the needs of customers. In other words, it describes the total benefits to the customer. The *value proposition* is an important part of the marketing plan of any product or service. For 50 value propositions in B2C e-commerce, see CPC Andrew (2012).

Functions of a Business Model

Business models have the following major functions or objectives:

- Describe the supply and value chains.
- Formulate the venture's competitive strategy and its long-range plans.
- Present the customer value proposition.
- Identify who will use the technology for what purpose; specify the revenue-generation process; where the company will operate.
- Estimate the cost structure and amount and profit potential.

Typical EC Business Models

There are many types of EC business models. Examples and details of EC business models can be found throughout this text, and in Rappa (2010). The following are five common models. Additional models are listed in Online File W1.3.

1. **Online direct marketing.** The most obvious EC model is that of selling products or services online. Sales may be from a *manufacturer* to a customer, eliminating intermediaries or physical stores (e.g., Dell), or from *retailers* to consumers, making distribution more efficient (e.g., Net-a-Porter, Walmart online). This model is especially efficient for digitizable products and services (those that can be delivered electronically). This model has several variations (see Chapters 3 and 4) and uses different mechanisms (e.g., auctions). It is practiced in B2C (where it is called *e-tailing*).
2. **Electronic tendering systems.** Large organizational buyers usually make large-volume or large-value purchases through a **tendering (bidding) system,** also known as a *reverse auction*. Such tendering can be done online, saving time and money. Pioneered by General Electric Corp., e-tendering systems are gaining popularity. Indeed, many government agencies mandate that most of their procurement must be done through e-tendering. (Details are provided in Chapter 4.)
3. **Electronic marketplaces and exchanges.** Electronic marketplaces existed in isolated applications for decades (e.g., stock and commodities exchanges). But as of 1996, hundreds of e-marketplaces (old and new) have introduced new methods and efficiencies to the trading process. If they are well organized and managed, e-marketplaces can provide significant benefits to both buyers and sellers. Of special interest are vertical marketplaces that concentrate on one industry. For details see Chapter 4.

4. **Viral advertising and marketing.** According to the viral marketing model (see Chapter 7), people use e-mail and social networks to spread word-of-mouth advertising. It is basically Web-based *word-of-mouth* advertising, and is popular in social networks.
5. **Group purchasing.** Group purchasing is a well-known off-line method, both in B2C and B2B. It is based on the concept of quantity discounts ("cheaper by the dozen"). The Internet model allows individuals to get together, so they can gain the large-quantity advantage. This model was not popular in B2C until 2010 when Groupon introduced a modified model in which people are grouped around special deals, as illustrated in Chapter 7. Note that the model is very popular in China.

A company may use several EC models as demonstrated in Starbucks opening case, the NFL closing case, and the Dell case (Online File W1.1).

Classification of Business Models in E-Commerce

Rappa (2010) classified the EC business models into eight categories:

1. Brokerage: Market makers that charges fee for their services.
2. Advertising: Websites that provide content and charge advertisers for related ads.
3. Infomediary: Provide information and/or infrastructure that help buyers and/or sellers and charge for their services.
4. Merchant: Retailers (such as Walmart or Amazon): These buy the products and sell them at profit.
5. Direct model: Sell without intermediaries.
6. Affiliate: Paying website owners to place banners. Share fees received from advertisers.
7. Community: A social media-based model that utilizes Web 2.0 tools, social networks, and the characteristics presented in Chapter 7.

Rappa (2010) provides examples of each plus their revenue models. In addition, he presents the major varieties in each category.

SECTION 1.6 REVIEW QUESTIONS

1. What is a business model? Describe its functions and properties.
2. Describe a revenue model and a value proposition. How are they related?
3. Describe the following business models: direct marketing, tendering system, electronic exchanges, viral marketing, and social networking/commerce.
4. Identify some business models related to buying and those related to selling.
5. Describe how viral marketing works.

1.7 THE LIMITATIONS, IMPACTS, AND THE FUTURE OF E-COMMERCE

As indicated in Section 1.4 there are some limitations and failures in EC.

The Limitations and Barriers of EC

Barriers to EC are either non-technological or technological. Representative major barriers are listed in Table 1.5.

One important area that may limit some EC project is ethics.

Ethical Issues

Ethical issues can create pressures or constraints on EC business operations. Yet some ethical sites increase trust and help EC vendors. **Ethics** relates to standards of right and wrong. Ethics is a difficult concept, because what is considered ethical by one person may seem unethical to another. Likewise, what is considered ethical in one country may be unethical in another. See Chapter 11.

Table 1.5 Limitations of electronic commerce

Technological limitations	Non-technological limitations
Need for universal standards for quality, security, and reliability	Security and privacy concerns deter customers from buying
The telecommunications bandwidth is insufficient, especially for m-commerce, videos, and graphics	Lack of trust in sellers, in computers, and paperless faceless transactions hinders buying
Software development tools are still evolving	Resistance to change
It is difficult to integrate Internet and EC software with some existing (especially legacy) applications and databases	Many legal and public policy issues are not resolved or are not clear
Special Web servers are needed in addition to the network servers, which add to the cost of EC	National and international government regulations sometimes get in the way
Internet accessibility is still expensive and/or inconvenient	It is difficult to measure some of the costs and benefits of EC
Large-scale B2C requires special automated warehouses for order fulfillment	Not enough customers. Lack of collaboration along the supply chain

Implementing EC may raise ethical issues ranging from monitoring employee's e-mail to invasion of privacy of millions of customers whose data are stored in private and public databases. In implementing EC, it is necessary to pay attention to these issues and recognize that some of them may limit, or even prohibit, the use of EC. An example of this can be seen in the attempted implementation of RFID tags (Online Tutorial T2) in retail stores due to the potential invasion of buyers' privacy.

Overcoming the Barriers

Despite these barriers, EC is expanding rapidly. As experience accumulates and technology improves, the cost–benefit ratio of EC will increase, resulting in even greater rates of EC adoption.

Why Study E-Commerce?

The major reason to study e-commerce is that it is rapidly growing and impacting many business and marketing operations. The percentage of EC of total commerce is increasing rapidly and some predict that most future commerce will be online. Thus, any businessperson or a business student should learn about this field.

This is why the academic area of e-commerce that started around 1995 with only a few courses and textbooks is growing rapidly. Today, many universities offer EC courses and complete programs in e-commerce or e-business (e.g., majors in e-commerce, minors in e-commerce and certificate programs; see University of Virginia, University of Maine, University of Arkansas). Recently, e-commerce topics have been integrated into all functional fields (e.g., Internet marketing, electronic financial markets). The reason for this proliferation is that e-commerce is penetrating more and more into business areas, services, and governments. Finally, it is fascinating field with its innovative business models.

However, there are also some very tangible benefits to increased knowledge of EC. First, your chances of getting a good (or better) job are higher. The demand for both technical and managerial EC skills is growing rapidly, and so are the salaries (e.g., see salary comparison sites such as **salary.com** and **coach.careerbuilder.com**). Hundreds of well-paying open positions are available in areas related to social media, social networking, and social commerce. Second, your chances for a promotion could be higher if you understand EC and know how to seize its opportunities. Finally, it gives you a chance to become a billionaire, like the founders of Google, Facebook, YouTube, Amazon.com, and Alibaba, or to make a great deal of money on eBay. You can make money simply by selling on eBay or your own website. And you can do it even while you are a student. (See **jetpens.com**.) Even some teenagers practice successful EC. An example is Diane Keng, an entrepreneur from Cupertino Monte Vista High School in California, who initiated three Web 2.0 successful start-up companies, making substantial money.

In 2016, a 9-year-old sold thousands of boxes of Girl Scout cookies on the Internet instead of going door-to-door.

There are many other opportunities for young people to make money from EC in addition to the examples in this book and selling on eBay. Experts suggest the following ways to earn extra cash online: (1) sell your craft; (2) make money from your talent; (3) be a nurse on call; (4) write, edit, or proofread; (5) design graphics and websites; (6) tutor kids or adults; (7) give advice; (8) provide customer service; (9) launch a blog; (10) give your opinion (for a fee); (11) search the Internet; and (12) do online tasks. For 55 ways to make money online, see Pantic (2013). See also **shop.com**. Finally, for how to make money on the Internet using EC, see Bates and Money Online (2014).

Many opportunities are available in the areas of social media and commerce.

The Future of EC

Several economic, technological, and societal trends impact EC and shape its direction. For example, most experts agree that the shift from EC to mobile commerce is inevitable. In addition, many believe in the future of social commerce, as a major component of e-commerce (e.g., see Turban et al. 2016). There will be a surge in the use of e-commerce in developing countries (mostly thanks to smartphones and tablets as well as e-payment systems). E-commerce will win its battle against conventional retailing (see the Amazon vs. Best Buy discussion in Chapter 3). Finally, e-commerce will increase its global reach.

EC will impact some industries more than others. This impact is changing with time. For example, major impacts in the past 8 years were felt in travel, retail, stock brokering, and banking. Next, are movies, healthcare, book publishing, and electronic payments. For an interesting review, see Solis (2012).

Today's predictions about the future size of EC, provided by respected analysts such as ComScore, eMarketer.com, and Forrester, vary. For a list of sites that provide such predictions and other statistics on EC, see Table 3.1.

The number of Internet users worldwide was estimated to be around 2.6 billion in winter 2014, up from 2.4 billion in 2012 (see **internetworldstats.com**). With more people on the Internet, EC will increase.

EMarketer forecasted that almost 85% of all Internet users in the USA would shop online in 2016. The repercussions of the 2008–2014 financial meltdown has motivated people to shop online and look for bargains where price comparison is easy and fast (e.g., try to find the price of an item on Amazon.com).

Another important factor is the increase in mobile devices and especially smartphones. EC growth would come not only from B2C, but also from B2B and from newer applications such as e-government, e-learning, B2E, social commerce, and c-commerce. The total volume of EC has been growing every year by 10–16% in spite of the failures of individual companies and initiatives and the economic slowdown.

Finally, different business environment factors facilitate EC (see Online File W1.4).

The future of EC depends on technological, organizational, and societal trends (e.g., see Fei and Chung 2015). Piastro (2010) lists the top 10 trends that are shaping the future of e-commerce and Gartner Inc., publishes a list of the "Top 10 Strategic Technology Trends" every year. See **gartner.com/newsroom/id/2603623** for 2014. Both the 2014 and 2015 lists include several EC topics (e.g., mobile apps, Internet of Things). See also McCafferty (2016) for the top trends of 2016.

A final note: The future of EC depends on the accessibility to the Internet. Facebook's laser drones could bring the Internet to five billion people (see CBS 2015).

SECTION 1.7 REVIEW QUESTIONS

1. List the major technological and non-technological barriers and limitations to EC.
2. Describe some of the benefits of studying EC.
3. How can EC help entrepreneurship?
4. Summarize the major points involved with the future of e-commerce.

1.8 OVERVIEW OF THIS BOOK

This book is composed of 12 chapters grouped into five parts, as shown in Figure 1.8. Additional content, including online supplemental material for each chapter, is available online on the book's website (**ecommerce-introduction-textbook.com**).

The specific parts and chapters of this textbook are as follows:

Part I: Introduction to E-Commerce and E-Marketplaces

This part of the book includes an overview of EC and its content, benefits, limitations, and drivers, which are presented in Chapter 1. Chapter 2 presents electronic markets and their mechanisms, such as electronic catalogs and auctions. This chapter also includes a presentation of Web 2.0 tools of social networks, and some emerging technologies.

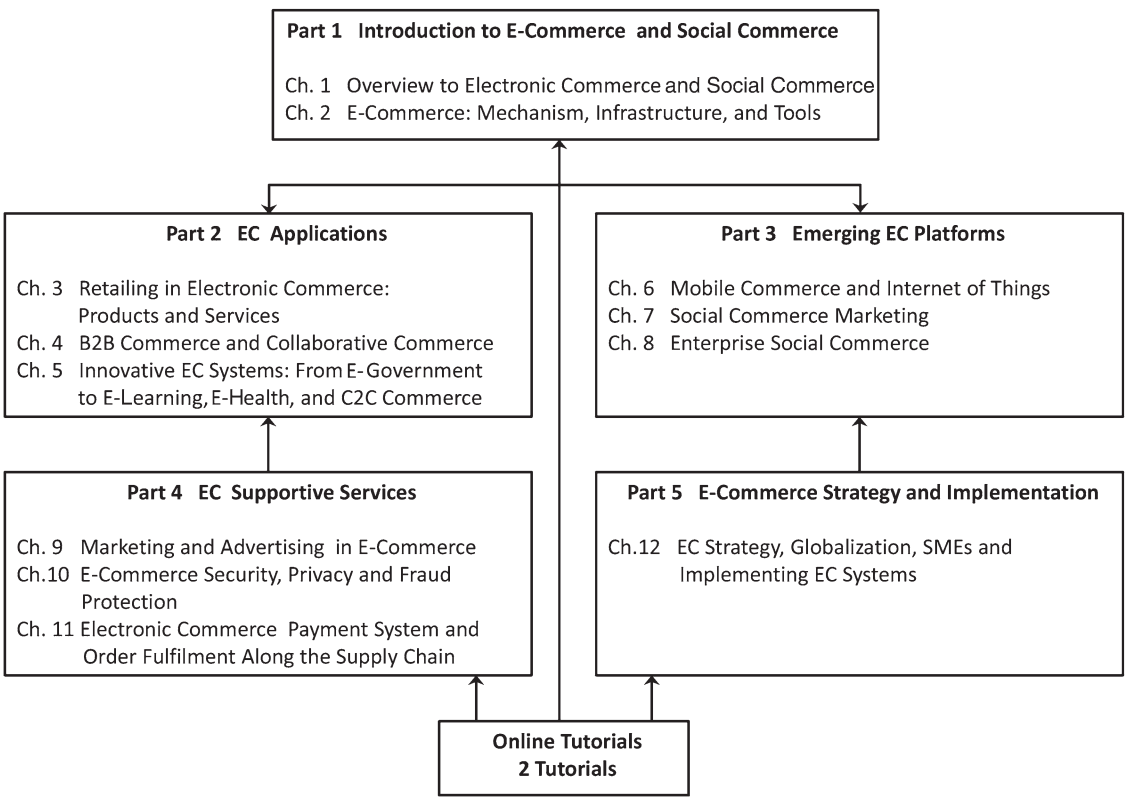

Figure 1.8 Plan of the book

Part II: EC Applications

This section includes three chapters. Chapter 3 describes e-tailing (B2C), including some of its most innovative applications for selling products online. It also describes the delivery of services, such as online banking, travel, and insurance. In Chapter 4, we introduce B2B EC and describe company-centric models (one buyer–many sellers, one seller–many buyers) as well as electronic exchanges (many buyers and many sellers). E-government, e-learning, management-health, and C2C are the major subjects of Chapter 5.

Part III: Emerging EC Delivery Platforms

In addition to traditional EC delivery platforms, described in Part II we present in the three chapters of Part III the following topics: Chapter 6 covers the area of mobile commerce and ubiquitous computing. In Chapter 7 we cover the area of social commerce and social media marketing. The part concludes with enterprise social commerce and other applications (Chapter 8).

Part IV: EC Support Services

Part IV examines the issues involving the support services needed for EC applications in three chapters. Chapter 9 explains consumer behavior in cyberspace, online market research, and Internet advertising. Chapter 10 delves into EC security and fraud protection. Chapter 11 discusses electronic payments and order fulfillment.

Part V: EC Strategy and Implementation

Part V includes one chapter. Chapter 12 examines e-strategy and planning, including going global and the impact of EC on small businesses. It also deals with implementation issues and the regulatory environment.

Online Mini Tutorials

Two tutorials are available at the book's website (**ecommerce-introduction-textbook.com**).
T1 e-CRM
T2 EC Technology: EDI, Extranet, RFID, and Cloud Computing

Online Supplements

A large number of online files organized by chapter number support the content of each chapter.

They are available at **ecommerce-introduction-textbook.com**.

MANAGERIAL ISSUES

Some managerial issues related to this introductory chapter are as follows.

1. **Why is B2B e-commerce so essential and successful?** B2B EC is essential for several reasons**.** First, some B2B models are easier to implement than B2C models. The volume and value of transactions is much larger in B2B than in B2C, and the potential savings are larger and easier to justify. In contrast with B2C, which has several major problems, ranging from channel conflict with existing distributors to fraud, to a lack of a critical mass of buyers. Many companies can start B2B by simply buying from existing online stores and B2B exchanges or selling electronically by joining existing marketplaces or an auction house. The problem is determining *what* and *where* to buy or sell online.
2. **Which EC business projects work best?** Beginning in early 2000, the news was awash with stories about the failure of many dot-coms and EC projects. Industry consolidation often occurs after a "gold rush." About 100 years ago, hundreds of companies tried to manufacture cars, following Ford's success in the United States; only three survived. The important thing is to learn from the successes and failures of others, and discover the right business model for each endeavor.
3. **How can we exploit social commerce?** There are major possibilities here. Some companies even open their own social networks. Advertising is probably the first thing to consider. Recruiting can be a promising avenue as well. Offering discounted products and services should also be considered. Providing customer services and conducting market research can be a useful activity as well. Making customers and selling to them can be beneficial. Finally, the ultimate goal is associating the social network with commerce so that revenue is created.
4. **What are the top challenges of EC today?** The top 10 technical issues for EC (in order of their importance) are security, adequate infrastructure, virtualization, back-end systems integration, more intelligent software, cloud computing, data warehousing and mining, scalability, and content distribution. The top 10 managerial issues for EC are justification, budgets, project deadlines, keeping up

with technology, privacy issues, unrealistic management expectations, training, reaching new customers, improving customer ordering services, and finding qualified EC employees. Most of these issues are discussed throughout this book.

SUMMARY

In this chapter, you learned about the following EC issues as they relate to the chapter's learning objectives.

1. **Definition of EC and description of its various categories.** EC involves conducting transactions electronically. Its major categories are pure versus partial EC, Internet versus non-Internet, and electronic markets versus company-based systems.
2. **The content and framework of EC.** The applications of EC, and there are many, are based on infrastructures and are supported by people; public policy and technical standards; marketing and advertising; support services, such as logistics, security, and payment services; and business partners—all tied together by management.
3. **The major types of EC transactions.** The major types of EC transactions are B2B, B2C, C2C, m-commerce, intrabusiness commerce, B2E, c-commerce, e-government, social commerce, and e-learning.
4. **The drivers of EC.** EC is a major product of the digital and technological revolutions, which enables companies to simultaneously increase both growth and profits. These revolutions enable digitization of products, services, and information. A major driver of EC is the changing business environment. The rapid change is due to technological breakthroughs, globalization, societal changes, deregulation, and more. The changing business environment forces organizations to respond. Many traditional responses may not be sufficient because of the magnitude of the pressures and the pace of the changes involved. Therefore, organizations must frequently innovate and reengineer their operations. EC, due to its characteristics is a necessary partner for this process.

   Finally, EC is driven due to its ability to provide a much needed strategic advantage so organizations can compete better.
5. **Benefits of EC to organizations, consumers, and society.** EC offers numerous benefits to all participants. Because these benefits are substantial, it looks as though EC is here to stay, and cannot be ignored. Also, organizations can go into remote and global markets for both selling and buying at better prices. Organizations can speed time-to-market to gain competitive advantage. They can improve the internal and external supply chain as well as increase collaboration. Finally, they can better comply with government regulations.
6. **E-commerce 2.0 and social media.** This refers to the use of social computing in business, often through the use of Web 2.0 tools (such as blogs, wikis) with its social media framework, as well as the emergence of enterprise social networking and commercial activities in virtual worlds. Social and business networks attract huge numbers of visitors.
7. **Describe social commerce and social software.** Companies are beginning to exploit the opportunity of conducting business transactions in social networks and by using social software such as blogs. Major areas are advertising, shopping, customer service, recruiting, and collaboration.
8. **The elements of the digital world.** The major elements of the digital world are the digital economy, digital enterprises, and digital society. They are diversified and expanding rapidly.

   The digital world is accompanied by social businesses and social customers.
9. **The major EC business models.** The major EC business models include online direct marketing, electronic tendering systems, name-your-own-price, affiliate marketing, viral marketing, group purchasing, online auctions, mass customization (make-to-order), electronic exchanges, supply chain improvers, finding the best price, value-chain integration, value-chain providers, information brokers, bartering, deep discounting, and membership.
10. **Limitations of e-commerce.** The major limitations of EC are the resistance to new technology, fear from fraud, integration with other IT systems may be difficult, costly order fulfillment, privacy issue, unclear regulatory issues, lack of trust in computers, and unknown business partners, difficulties to justify EC initiatives, and lack of EC skilled employees.

KEY TERMS

Brick-and-mortar (old economy) organizations
Business model
Business-to-business (B2B)
Business-to-consumer (B2C)
Business-to-employee (B2E)
Collaborative commerce (c-commerce)
Consumer-to-business (C2B)
Consumer-to-consumer (C2C)
Corporate portal
Digital economy
Digital enterprise
E-business
E-government
Electronic commerce (EC)
Electronic market (e-marketplace)
E-tailing

Ethics
Extranet
Intrabusiness EC
Intranet
Sharing economy
Social business
Social commerce (SC)
Social computing
Social (digital) customer
Social enterprise
Social media
Social network
Social networking
Social networking services (SNSs)
Tendering (bidding) system
Value proposition
Virtual (pure-play) organizations
Web 2.0

DISCUSSION QUESTIONS

1. Compare brick-and-mortar and click-and-mortar organizations.
2. Why is buying with a smart card from a vending machine considered EC?
3. Explain how EC can reduce cycle time, improve employees' empowerment, and facilitate customer service.
4. Compare and contrast viral marketing with affiliate marketing.
5. Identify the contribution of Web 2.0. What does it add to EC?
6. Discuss the reasons companies embark on social commerce.
7. Distinguish an enterprise social network from a public one such as Facebook.
8. Carefully examine the non-technological limitations of EC. Which are company-dependent and which are generic?
9. Relate the social customer to social business.

TOPICS FOR CLASS DISCUSSION AND DEBATES

1. How can EC be both a business pressure and an organizational response to other business pressures?
2. Debate: Does digital business eliminate the "human touch" in trading? In addition, if "yes," is it really bad?
3. Why do companies frequently change their business models? What are the advantages? The disadvantages?
4. Debate: EC eliminates more jobs than it creates. Should we restrict its use and growth?
5. Debate: Will online fashion hurt traditional fashion retailers?
6. Search for information on the enterprise of the future. Start with **ibm.com**. In one or two pages, summarize how the enterprise of the future differs from today's enterprise.
7. Read McDonald's activities at P&G (McDonald 2011). Discuss the various e-commerce and other digital activities. Discuss the need for such a revolution.
8. Investigate why the one day sales during Singles' Day in China generated more than twice the money generated on Cyber Monday in the USA (see Wang and Pfanner 2013).
9. Discuss the impacts of EC on the fashion industry.

INTERNET EXERCISES

1. Enter **www.excitingcommerce.com** and find recent information about emerging EC models and the future of the field.
2. Visit **amazon.com** and locate recent information in the following areas:
   (a) Find the five top-selling books on EC.
   (b) Find a review of one of these books.
   (c) Review the personalized services you can get from Amazon.com and describe the benefits you receive from shopping there.
   (d) Review the products directory.
3. Visit **priceline.com** and **zappos.com** and identify the various business revenue models used by both. Discuss their advantages.
4. Go to **nike.com** and design your own shoes. Next, visit **products.office.com** and create your own business card. Finally, enter **jaguar.com** and configure the car of your dreams. What are the advantages of each activity? The disadvantages?
5. Try to save on your next purchase. Visit **pricegrabber.com**, **yub.com**, and **buyerzone.com**. Which site do you prefer? Why?
6. Enter **espn.go.com**, **123greetings.com**, and **facebook.com** and identify and list all the revenue sources on each of the companies' sites.
7. Enter **philatino.com**, **stampauctioncentral.com**, and **statusint.com**. Identify the business model(s) and revenue models they use. What are the benefits to sellers? To buyers?
8. Go to **zipcar.com**. What can this site help you do?
9. Enter **digitalenterprise.org**. Prepare a report regarding the latest EC models and developments.
10. Visit some websites that offer employment opportunities in EC (such as **execunet.com** and **monster.com**). Compare the EC salaries to salaries offered to accountants. For other information on EC salaries, check *Computerworld*'s annual salary survey and **salary.com**.

11. Visit **bluenile.com**, **diamond.com**, and **jewelryexchange.com**. Compare the sites. Comment on the similarities and the differences.
12. Visit **tickets-online.com**, **ticketmaster.com**, **stubhub.com**, and other sites that sell event tickets online. Assess the competition in online ticket sales. What services do the different sites provide?
13. Enter **timberland.com** and design a pair of boots. Compare it to building your own sneakers at **nike.com**. Compare these sites to **zappos.com/shoes**.
14. Examine two or three of the following sites: **prosper.com**, **paperbackswap.com**, **bigvine.net**, etc. Compare their business and revenue models.

TEAM ASSIGNMENTS AND PROJECTS

1. Read the opening case and answer the following questions:
   (a) In what ways you think Starbucks increases its brand recognition with its EC initiatives?
   (b) Some criticize My Starbucks Idea as an ineffective "show off." Find information about the pros and cons of the program. (See the Starbucks Ideas in Action Blog).
   (c) Starbucks initiates discussions on Facebook about non-business topics such as the marriage equality bill. Why?
   (d) Discuss how customers are being kept involved and engaged in the various EC initiatives.
   (e) Starbucks believes that its digital and social initiatives are "highly innovative and cause dramatic changes in consumer behavior." Discuss.
   (f) Watch the video available on Stelzner (2010) (8 min) and answer the following:
      i. How does Starbucks use video marketing in social media?
      ii. How does the company listen to their customers?
      iii. What are some tips for success and for things to avoid?
      iv. Enter **facebook.com/Starbucks**. Summarize your impressions of the site.
2. Each team will research two EC success stories. Members of the group should examine companies that operate solely online and some that extensively utilize a click-and-mortar strategy. Each team should identify the critical success factors for their companies and present a report to the other teams.
3. Watch the video *E-Commerce Part 1* (10.3 min) at **youtube.com/watch?v=gOVh-r03zxQ.**
   (a) Update all the data shown in the video.
   (b) What fundamental change is introduced by EC?
   (c) What is the first mover advantage discussed in the video?
   (d) Amazon.com and other companies that lost money during the time the video was made are making a lot of money today; find out why.
   (e) Identify all the EC business models discussed in the video.
   (f) How can one conduct an EC business from home?
   (g) EC is considered a disruptor. In what ways?
4. Conduct a search on "social business." Start at **eweek.com**. Divide the work between several teams, each team covers one topic and each team writes a report.
5. Research the status of self-driven cars. Start by reading Neil (2012). Outline the pro and con points. Why this is considered EC? Give a presentation.
6. Research the impact of e-commerce on the auto industry, including self-driven cars. (Read Gao et al. 2016). Write a report. Compare Net-a-Porter with Myhabit from Amazon and other sites that discount designer items. In addition, see what Groupon offers in this area. Analyze the competitive advantage of each. Write a report.

CLOSING CASE: E-COMMERCE AT THE NATIONAL FOOTBALL LEAGUE (NFL)

Professional sports are multibillion-dollar businesses in the United States and they are growing rapidly in many other countries. The National Football League (NFL), which consists of 32 teams, is a premier brand of the most popular sport in the United States—football. The NFL uses e-commerce and other information technologies extensively to run its business efficiently. The following are some examples of e-commerce activities the NFL conducts both at the corporate level and the individual team level.

Selling Online

In addition to the official store (**nflshop.com**) and the individual team stores (e.g., the Atlanta Falcons), there are dozens of independent stores that sell authentic, as well as replicas, of jerseys, hats, shirts, and other team merchandise. Most of these sales are done online, which enables you to buy your favorite team's items from anywhere; you can also save with coupons. It is basically a multibillion-dollar B2C business, supported by search and shopping tools (see Chapter 2), including price comparisons (e.g., compare prices at **bizrate.com/electronics-cases-bags**).

Several online stores sell tickets for NFL events, including resale tickets. For example, see **ticketsnow.com/nfl-tickets**.

Selling in China

In October 2013, the NFL opened its official online store in China (**nfl.world.tmall.com**). To embark on this venture, the NFL used two partners: Export Now to handle all the administration of the transactions, and Tmall.com (China's leading EC seller with over 500 million registered members). See Dusto (2013).

Information, News, and Social Commerce

The NFL is on Facebook where there is a company description and many posts by its fans. It is also on Twitter where you can find information on upcoming NFL events, and be one of its 4,000,000+ followers. You can also get local news including real-time sports scores texted to your smartphone. The popularity of social media used by players created a need for a policy regarding the use of social networks before and after (but not during) games. For the policy, see the article titled "Social Media Before, After Games" at **sports.espn.go.com/nfl/news/story?id=4435401**. For the use of social commerce in the NFL business, see Brennan (2014).

Videos and Fantasy Games

Madden NFL 11 is a video game available across all major consoles with an adaptation for iPhone and iPad versions of the game. For details, see **en.wikipedia.org/wiki/Madden_NFL_11**. Related to these games are the NFL fantasy games that are available for free at **fantasy.nfl.com**.

Smartphone Experience

Smartphones, and especially iPhones, now allow users to go online to view games in real time (some are costly). You can also use the iPhone to view photos in the stadium that are projected on a TV, and much more.

Wireless Applications in Stadiums

Several stadiums are equipped with state-of-the-art wireless systems. One example is the University of Phoenix Stadium, which is the home of the Arizona Cardinals. Fans can access many high-definition TVs in real time. Fans with smartphones can get real-time scores or purchase food and other merchandise. The system also enables employees to process ticket sales quickly. In addition, fans can watch the game while buying food in the stadium. The Cardinal's marketing department can advertise the forthcoming games and other events on the system. It also delivers data to coaches as needed during games. A similar system (used in the Sun Life Stadium, home of the Miami Dolphins) enables personalized replay during games (see the video about a special portable device titled "Miami Dolphins Transform Sun Life Stadium into Entertainment Destination for Fans" at **youtube.com/watch?v=t2qErS7f17Y**). Also, you can order food online, have it delivered to your seat, and pay for it electronically. Finally, you can play fantasy games while in the stadium. These EC applications are designed to make fans happy and to generate revenue.

Other Applications

The NFL uses many other EC applications for the management of transportation to the Super Bowl, security implementation, procurement (B2B), providing e-CRM, and much more.

For an interesting infographic on Super Bowl NFL business, see Bathe (2015).

Sources: Based on Bathe (2015) and material collected on Facebook, and Twitter (accessed March 2016).

Questions

1. Identify all applications related to B2C in online stores (see Roggio 2013 to get started).
2. Identify all B2C applications inside the stadium.
3. Identify all B2E applications inside the stadium.
4. Relate online game playing to EC at NFL.
5. Compare the NFL information available on Facebook to that of Instagram.
6. Find additional NFL-related applications not cited in this case.
7. Enter **http://www.ignify.com/Atlanta_Falcons_eCommerce_Case_Study.html**. Read the case "Atlanta Falcons E-Commerce Case Study," then go to the Falcons' online store and describe all major EC models that are used there.
8. Find information on social commerce at the NFL.
9. Compare *Madden NFL 11* with NFL fantasy games.

ONLINE RESOURCES

Available at **ecommerce-introduction-textbook.com**

ONLINE FILES

W1.1 Application Case: Dell—Using E-Commerce for Success
W1.2 Application Case: GrubHub.com—Student Entrepreneurs
W1.3 Representative EC Business Models
W1.4 The Changing Business Environment, Organizational Responses, and EC and IT Support

REFERENCES

Ad Age Staff. "How Western Brands Are Tapping into China's Crazy-Big E-Commerce Holiday." *Ad Age #Protips*, November 4, 2013.

Ahmad, I. "100 Most Startling Tech Facts, Figures, and Statistics from 2013 [Infographic]." January 2, 2014. **socialmediatoday.com/irfan-ahmad/2033741/100-most-startling-tech-facts-figures-and-statistics-2013-infographic** (accessed March 2016).

Allison, M., "Starbucks Presses Social Media Onward." April 27, 2013. **seattletimes.com/html/businesstechnology/2020862483_starbuckssocialxml.html** (accessed May 2016).

Bathe, M. "eCommerce Community: NFL Super Bowl & eCommerce [Infographic]." January 28, 2015. **thejibe.com/blog/15/01/ecommerce-community-nfl-super-bowl-ecommerce-infographic** (accessed March 2016).

Bates, D., and Money Online. *Making Money Online: Making Your First Thousand Dollars from the Internet has Never Been this Easy! Generate a Huge Monthly Passive Income from Home. Start…to Make Money Online with Proven Methods!* [Kindle Edition], Seattle, WA: Amazon Digital Services, 2014.

Bertelsen, M. "8 Surprising Social Media Lessons You'll Learn from Oprah." *Social Media Revolver*, December 23, 2014. **socialmediarevolver.com/surprising-social-media-lessons-oprah** (accessed March 2016).

Brennan, B. "The effect of the 2014/15 NFL American Football Season on E-Commerce and Retail Companies." *Conversocial*, October 15, 2014. **conversocial.com/blog/the-effect-of-the-2014/15-nfl-american-football-season-for-ecommerce-and-retail-companies#.VtoWdPkrI2w** (accessed March 2016).

Bridges, R., and A. Sherman. *Driverless Car Revolution: Buy Mobility, Not Metal*, Kindle Edition. Seattle, WA: Amazon Digital Services, 2016.

Brohan, M. "Starbucks Wants Its Fill of Mobile-First Customers." *Internet Retailer*, November 4, 2015.

Buczynski, B. *Sharing is Good: How Save Money, Time and Resources through Collaborative Consumption.* Gabriola Island, BC Canada: New Society Publishers, 2013.

Burke, A. "How a 15-Year-Old Entrepreneur Got Her Product into Nordstrom." December 23, 2013. **news.yahoo.com/blogs/profit-minded/15-old-entrepreneur-got-her-product-nordstrom-233738356.html** (accessed March 2016).

CBS. "Facebook's Laser Drones Could Bring Internet to 5 Billion People." *CBS Local*, May 26, 2015. **sanfrancisco.cbslocal.com/2015/03/26/facebook-droness-lasers-internet** (accessed March 2016).

Colby, K. L. "Web 2.0 Technology for the New Generation. Simplify. Simplify. Simplify. (TECHNOLOGY)." *Alaska Business Monthly*, December 2008.

CPC Andrew. "50 Value Propositions for Ecommerce Retailers." *CPC Strategy*, July 12, 2012. **cpcstrategy.com/blog/2012/07/50-value-propositions-for-ecommerce-retailers** (accessed March 2016).

Drucker, P. *Managing in the Next Society.* New York: Truman Talley Books, 2002.

Dusto, A. "The National Football League Goes for an E-Commerce Touchdown in China." *Internet Retailer*, July 22, 2013.

Edwards, S., *Web 2.0 Guide- Tools and Strategy for the New Internet Wave*, [Kindle] Amazon Digital Services, 2013.

Fei, X., and J-Y Chung. *IT for Future e-Business Management*. Heidelberg, Berlin: Springer Link, 2015.

Gao, P., H-W. Kaas, D. Mohr, and D. Wee. "Disruptive Trends That Will Transform the Auto Industry." *McKinsey Company*, January 2016.

Guides. *Crowdsourcing: Uber, Airbnb, Kickstarter, & the Distributed Economy*. Berkeley, CA: Lightning Guide, 2015.

Howard, B. *We-Commerce: How to Create, Collaborate, and Succeed in the Sharing Economy*. Westminster, London: Tarcher Perigee, 2015.

Karakas, F. "Welcome to World 2.0: The New Digital Ecosystem." *Journal of Business Strategy*, 3, no. 4 (2009).

Khosrow-Pour, M., *E-Commerce for Organizational Development and Competitive Advantage*, Hershey, PA: IGI Global, 2013.

Lazazzera, R. "How to Choose an Ecommerce Business Model." *Shopify*, February 19, 2015. **shopify.com/blog/17240328-how-to-choose-an-ecommerce-business-model** (accessed March 2016).

Leggatt, H. "UK: Half of Domino's Pizza Sales Online." February 16, 2012. **bizreport.com/2012/02/uk-almost-half-of-dominos-pizza-sales-online.html** (accessed May 2016).

Li, F., and T. Han. "Singles' Day Spurs Industry Rally." *China Daily Hong Kong Edition*, November 25, 2013.

Loeb, W. "Starbucks: Global Coffee Giant Has New Growth Plans." January 31, 2013. **forbes.com/sites/walterloeb/2013/01/31/starbucks-global-coffee-giant-has-new-growth-plans** (accessed May 2016).

Maitra, D. "E-Commerce Is a New Dream for India Inc." *Deccan Herald*, April 14, 2013.

Manyika, J., M. Chui, J. Bughin, R. Dobbes, P. Bisson, and A. Marrs. "Disruptive Technologies: Advances That Will Transform Life, Business, and the Global Economy." McKinsey Global Institute. May (2013). **mckinsey.com/insights/business_technology/disruptive-technologies** (accessed March 2016).

McCafferty, D. "How Technology Disrupts Work-Life-Balance." *Baseline*, May 25, 2015.

McCafferty, D. "The Top 9 Tech Trends for 2016." *Baseline*, January 26, 2016.

McDonald, R. "Inside P&G's Digital Revolution." *McKinsey Quarterly*, November 2011.

Moscaritolo, A. "Futuristic Japanese Hotel Staffed Entirely by Robots." *News Opinions*, February 5, 2015. **pcmag.com/article2/0,2817,2476347,00.asp** (accessed March 2016).

Moth, D. "How Starbucks Uses Pinterest, Facebook, Twitter and Google+." March 6, 2013. **econsultancy.com/blog/62281-how-starbucks-uses-pinterest-facebook-twitter-and-google#i.1k5vbfsm0ndjpt** (accessed May 2016).

Murphy, C. "The Internet of Things." *Information Week*, August 13, 2012.

Neil, D. "Who's Behind the Wheel? Nobody." *The Wall Street Journal*, September 24, 2012.

Neckermann, L. *The Mobility Revolution: Zero Emissions, Zero Accidents, Zero Ownership*. Leicester, UK: Matador, 2015.

Olanrewaju, T., K. Smaje, and P. Willmott. "The Seven Traits of Effective Digital Enterprises." *McKinsey Company Insights*, May 2014.

Panagiotaropoulou, S. "Starbucks Case Study: Innovation in CRM Strategies, Means of Enabling E-Commerce." *LinkedIn Pulse*, September22,2015.**linkedin.com/pulse/starbucks-case-study-innovation-crm-strategies-means-stavoula** (accessed March 2016).

Pantic, M. "How to Make Money from a Website—55 Ways to Bring in the Cash." August 31, 2013. **business2community.com/online-marketong/make-money-website-55-ways-bringing-in-the-cash-0601137** (accessed March 2016).

Pepitone, J. "7 Craziest Things Connected to the Internet." September 18, 2012. **money.cnn.com/gallery/technology/2012/09/18/internet-of-things/4.html** (accessed March 2016).

Piastro, M. "The Top 10 Trends Shaping the Future of Ecommerce." November 8, 2010. **imediaconnection.com/content/27969.asp** (accessed March 2016).

Plunkett, J. W., et al. (eds.), *Plunkett's E-Commerce & Internet Business Almanac 2015 (Plunkett's E-Commerce and Internet Business Almanac)*. Houston, TX: Plunkett Research Ltd., 2015.

Pressler, J. "The World is not Enough for Net-a-Porter." *Nymag.com/thecut/*, August 11, 2015.

Rappa, M. "Business Models on the Web." January 17, 2010. **digitalenterprise.org/models/models.html** (accessed March 2016).

Roggio, A. "9 Ecommerce Lessons from NFL Online Shops." *Practical Ecommerce*, November 6, 2013. **practicalecommerce.com/article/60509-9-Ecommerce-Lessons-from-NFL-Online-Shops** (accessed March 2016).

Schoultz, M. "Starbucks Marketing Makes Social Media a Difference Maker." June 15, 2013. **digitalsparkmarketing.com/creative-marketing/social-media/starbucks-marketing** (accessed May 2016).

Shelly, G. B., and M. Frydenberg. *Web 2.0: Concepts and Applications.* Independence, KY: Course Technology, 2010.

Sidhu, I. *The Digital Revolution: How Connected Digital Innovations are Transforming Your Industry, Company & Career*. London: Pearson FT Press, 2015.

Smith, A. "This Flying Car Will Be Ready for Take Off in 2017." *CNN News*,March17,2015.**money.cnn.com/2015/03/17/autos/aeromobil-flying-car/index.html?iid=surge-story-summary** (accessed March 2016).

Solis, B. *The End of Business As Usual: Rewire the Way You Work to Succeed in the Consumer Revolution.* Hoboken, NJ: Wiley, 2012.

Sparkes, M. "Ten Ways That Driverless Cars Will Change the World." *Telegraph*, May 28, 2014. **telegraph.co.uk/technology/google/10860036/ten-way-that-driverless-cars-will-change-the-world** (accessed March 2016).

Stanley, T. and R. Ritacca. "E-Commerce in China: Driving a New Consumer Culture." *KPMG Report*, January 2014.

Straut, A. "Follow the Leader: How Starbucks is Dominating Mobile Commerce." *Mobile Marketing*, August 13, 2015.

Stelzner, M. "How Starbucks Engages Millions of Facebook Fans." May20,2010.**socialmediaexaminer.com/how-starbucks-engages-millions-of-facebook-fans** (accessed March 2016).

Strategic Direction. "DotCom Boom and Bust: The Secrets of E-Commerce Failure and Success." February 2005.

Taft, D. K. "Enterprise Applications: IBM Goes Social: 25 Examples of Big Blue Becoming a Social Business." January 19, 2012a. **eweek.com/c/a/Enterprise-Applications/IBM-Goes-Social-25-Examples-of-Big-Blue-Becoming-a-Social-Business-601979** (accessed March 2016).

Taft, D. K. "Enterprise Applications: Why IBM Smarter Commerce Focuses on the Digital Customer." September 10, 2012b. **eweek.com/it-management/slideshows/Why-IBM-Smarter-Commerce-Focuses-on-the-Digital-Customer** (accessed March 2016).

Thomas, J. "Google's Self-Driving Car, the Justin Bieber of The Car World." *San Jose Mercury News*, January 21, 2014.

Tse, E. *China's Disruptors: How Alibaba, Xiaomi, Tencent, and Other Companies Are Changing the Rules of Business*. Westminster, London: Portfolio, 2015.

Turban, E., J. Strauss, and L. Lai. *Social Commerce*. New York: Springer, 2016.

U.S. Census Bureau. "E-Stats 2014 Report: Measuring the Electronic Economy." June 8, 2016. **census.gov/newsroom/press-releases/2016/cb16-tps108.html** (accessed February 2017).

Vizard, M. "Jaguar Launches Virtual Shopping Experiences." *CIO Insight*, June 5, 2013.

Wang, S., and E. Pfanner. "Online Shopping Marathon Zooms Off the Blocks in China." *The New York Times*, November 11, 2013.

Welch, M., and J. Buval. "Starbucks: Taking the Starbucks Experience Digital." eBook: *Capgemini Consulting*, November 23, 2015. **ebooks.capgemini-consulting.com/dm/starbucks.pdf** (accessed March 2016).

Wilfred, M. "Struggling Retailers Report Change in Shopping Trends." February 2, 2014. **sproutwired.com/struggling-retailers-report-change-in-shopping-trends/185173** (accessed March 2016).

Willgren, S. "Farmers Online: Old Traditions, Modern Technology." *The Epoch Times* (Toronto, Canada), June 20–26, 2013.