After reading this chapter, you will be able to:

- Describe the major types of auctions, their benefits and costs, and how they operate.
- Understand when to use auctions in a business.
- Recognize the potential for auction abuse and fraud.
- Describe the major types of Internet portals.
- Understand the business models of portals.
- Explain the difference between a virtual community and a traditional community, and how an online community differs from a portal.
- Describe the different types of online communities and their business models.
- Understand the business value of communities.
t Sam’s Club, everything is big. A subsidiary of Wal-Mart, Sam’s Club is a chain of “big box” members-only warehouse stores. It has over 40 million members who pay $50 per year to join the club. Members can buy food and general merchandise by the case at any one of its 470 warehouse stores. Sam’s Club caters to businesses, contractors, and the general public by offering near wholesale prices on a wide range of merchandise. Like most retailers, until recently, Sam’s Club sold out-of-season and overstock items to liquidators for pennies on the dollar, or offered them to customers at clearance prices little over their costs.

To increase revenues from these items, Sam’s Club has turned to FairMarket Inc., an excess-inventory solutions provider that builds auction sites for established firms. In June 2001, Sam’s Club opened its auction site to members, offering both standard rising-price English auctions and falling-price Dutch auctions. Using sales data from its central data warehouse, the company selects a wide range of items from computers to baseball mitts, televisions and air compressors, and sells them on its auction site using dynamic pricing mechanisms. Certain items are highlighted each day to generate interest and encourage bidding. Sam’s Club has found that general consumers are attracted to rising-price English auctions where the price rises as customers bid, and the highest bidder wins. Businesses, on the other hand, are attracted to falling-price Dutch auctions where prices of items decrease at a set rate over a period of time until a buyer jumps in to make the purchase.

Sam’s Club has seen a 632% increase in traffic at its pre-existing online site since the day it announced the auctions. The company views the online auctions as a more profitable alternative to clearance sales and liquidators. Sam’s
Club hopes to have one-quarter of its customers purchasing either at auction or in the regular online store by the end of 2001.

Sam’s Club is just one of many established online retailers turning to dynamic pricing models. DellAuction.com auctions Dell computer equipment coming off lease. CompUSA uses auctions to sell excess and out-of-date inventory. Kmart’s BlueLight.com and JCPenney.com are also using auctions to clear shelves of inventory that has not sold. These firms are finding that an auction can often cause people to bid higher than they had planned — if only to experience the thrill of winning — and to bid at considerably higher prices than those that would be posted at clearance sales. Increasingly, customers are accepting the idea that prices are no longer fixed for many items, and merchandise can be conveniently purchased from established retailers for far less than fixed-price retail prices, although the goods are slightly out of date or unwanted by others. With the general acceptance of the online auction model growing, dynamic pricing will expand to encompass many retail products and services for which fixed prices currently prevail.

In this chapter, we discuss auctions, portals, and communities. One might ask, "What do auctions, portals, and communities have in common?" All three share a common thread: They are each based on feelings of shared interest and self-identification — in short, a sense of community. eBay.com started, for instance, as a community of people interested in trading items they owned for which there was no readily available market. The community of people who want to barter, trade, and exchange items of personal interest turns out to be huge — much larger than anyone expected. As one wag noted, on the weekends America turns into a large tag sale where everything from used baby carriages to rakes, shovels, and old clothing is put on sale in the driveways of suburban homes and sidewalks of urban areas. eBay is a huge online tag sale where millions of people have created a marketplace for unwanted but functional products. The founder of eBay was looking for a market for his girlfriend's Pez dispensers. He ended up creating one of the Web's largest online communities, composed of people interested in buying and selling in a dynamic price environment. Portals also contain strong elements of community — by providing access to community-fostering technologies such as e-mail, chat groups, bulletin boards, and discussion forums. Online communities explicitly attract people with shared affinities, such as ethnicity, gender, religion, and political views, or shared interests, such as an interest in hobbies, sports, and vacations.

13.1 AUCTIONS

Online auction sites are among the most popular consumer-to-consumer (C2C) e-commerce sites on the Internet. The market leader in C2C auctions is eBay.com, which in 2001 was recording more than five million unique visitors per week. eBay has a registered user base of more than 29 million consumers, one of the largest registered consumer bases on the Internet (Nielsen NetRatings, 2001). In the United States alone, there are several hundred auction sites, some specializing in unique collectible products such as stamps and coins, others adopting a more generalist approach in which just about any good can be found for sale. Increasingly, as discussed in the opening case, established portals and online retail sites — from Yahoo.com and MSN.com to JCPenney and Sam's Club B2C retail sites — are adding auctions to their sites. As noted in Chapter 12, auctions will constitute nearly 20% of all B2B e-commerce in 2001, and they appear to be growing rapidly. What explains the extraordinary popularity of auctions? Do consumers always get lower prices at auctions? Why do merchants auction their products if the prices they receive are so low?
Auctions

Auctions are markets in which prices are variable and based on the competition among participants who are buying or selling products and services. Auctions are one type of dynamic pricing, in which the price of the product varies, depending directly on the demand characteristics of the customer and the supply situation of the seller. There are a wide variety of dynamically priced markets, from simple haggling, bartering, and negotiating between one buyer and one seller, to much more sophisticated public auctions in which there may be thousands of sellers and thousands of buyers, as in a single stock market for a bundle of shares.

In dynamic pricing, merchants change their prices based on both their understanding of how much value the customer attaches to the product and their own desire to make a sale. Likewise, customers change their offers to buy based on both their perceptions of the seller's desire to sell and their own need for the product. If you as a customer really want the product right now, you will be charged a higher price in a dynamic pricing regime, and you will willingly pay a higher price than if you placed less value on the product and were willing to wait several days to buy it.

In contrast, traditional mass market merchants generally use fixed pricing—one national price, everywhere, for everyone. Fixed pricing first appeared in the nineteenth century with the development of mass national markets and retail stores that could sell to a national audience. Prior to this period, all pricing was dynamic and local, with prices derived through a process of negotiation between the customer and the merchant. Computers and the development of the Internet have contributed to a return of dynamic pricing. The difference is that with the Internet, dynamic pricing can be conducted globally, continuously, and at a very low cost.

Newer forms of dynamic pricing on the Internet include bundling, trigger pricing, utilization pricing, and personalization pricing. As discussed in Chapter 7, bundling of digital goods is the practice of including low-demand products in a bundle "for free" in order to increase total revenues. Trigger pricing, used in m-commerce applications, adjusts prices based on the location of the consumer—for example, walking within 400 yards of a restaurant may trigger an immediate 10% dinner coupon on a portable Web device. Utilization pricing adjusts prices based on utilization of the product; for example, Progressive Insurance Company adjusts the annual cost of automobile insurance based on mileage driven. Personalization pricing adjusts prices based on the merchant's estimate of how much the customer truly values the product; for instance, Web merchants may charge committed fans of a musician higher prices for the privilege of receiving a new DVD before its official release to retail stores. For a look at Amazon's experience using dynamic pricing in the online retail market, read Insight on Society: Amazon Tries Dynamic Pricing.

Auctions—one form of dynamic pricing mechanism—are used throughout the e-commerce landscape. The most widely known auctions are consumer-to-consumer
(C2C) auctions, in which the auction house is simply an intermediary market-maker, providing a forum where consumers—buyers and sellers—can discover prices and trade. In 2005, C2C auction sites are projected to generate $15.4 billion in revenue, and B2C auction sites will generate $11.4 billion. B2C auctions are projected to grow faster than C2C auctions as more and more merchants switch at least some of their products to a dynamic price environment (see Figure 13.1). And as noted in the previous chapter, B2B exchanges and e-procurement systems enable industrial buyers to hold auctions in which suppliers bid for business with large purchasing firms. Some leading online auction sites are listed in Table 13.1.

WHY ARE AUCTIONS SO POPULAR? BENEFITS AND COSTS OF AUCTIONS

The Internet is primarily responsible for the resurgence in auctions. Although electronic network-based auctions such as AUCNET in Japan (an electronic automobile auction for used cars) were developed in the late 1980s, these pre-Internet auctions required an expensive telecommunications network to implement. The Internet provides a global environment and very low fixed and operational costs for the aggregation of huge buyer audiences composed of millions of consumers worldwide who can use a universally available technology (Internet browsers) to shop for goods.

FIGURE 13.1 PROJECTED GROWTH IN REVENUES FROM C2C AUCTIONS AND B2C DYNAMIC PRICING

B2C auctions are the fastest growing type of dynamic pricing.

In September 2000, Amazon.com found itself in the midst of a public relations nightmare when customers in online chat rooms discovered that they had been charged different prices for the same DVDs. Amazon founder Jeff Bezos denied that the diverse prices resulted from gathering customer purchasing and behavioral data, and claimed instead that they were simply the result of random price testing to determine the correct price point for the products. Amazon was forced to apologize and issue refunds to approximately 7,000 customers.

The incident raises several issues about the use of dynamic pricing, which actually includes many different ways in which the same product is sold at disparate prices, such as sales, coupons, senior citizen discounts, and auctions, none of which is objected to by consumers. “Personal value” or personalization pricing is a specific type of dynamic pricing, in which merchants match their prices to the personal value that consumers will receive from a purchase. This process of estimating what any given consumer is willing to pay is risky because, as Amazon learned, if consumers find out about it, the backlash can be more costly than the possible revenue gain. However, Jupiter Media Metrix has issued a report concluding that the main thing Amazon did wrong was get caught.

Although consumers become irate when they are charged more for a product than others, Jupiter’s analysis concludes that they are also willing to pay more for quality and superior service, whether perceived or real. The public outcry following the Amazon incident led some analysts to conclude that struggling B2C dot.coms should abandon any thoughts of strengthening their bottom lines by resorting to dynamic pricing, and dot.com merchants became understandably apprehensive about the practice. Yet Jupiter insists that online retailers should employ personal-value pricing throughout a product’s life cycle, using such masking devices as coupons, promotions, and bundling low-demand products with high-demand products. By making dynamic pricing strategies invisible to the consumer, merchants can reduce the risk that they will be caught. Furthermore, because many consumers are more interested in quality than price, effective communication via e-mails and point-of-sale messages can remind them of the benefits of shopping with a particular merchant. In this way, merchants can tie the price for a product to the consumer’s perception of the value he or she is receiving rather than just to the product itself.

In fact, CRM (customer relationship management) software can be used to compile purchase and behavior dossiers on customers; market segmentation tools can be used to analyze the data, spot trends, and isolate customer groups; and sophisticated targeting tools can personalize offerings even down to the individual level. Using these tools, Jupiter suggests that B2C companies can charge a range of prices by issuing coupons of varying values based upon consumer behavior. Theoretically, each person will pay a price that is
consistent with the value that he or she places on the item.

Jupiter’s analysis suggests that merchants can decrease the risk of consumers learning that they are implementing these tools through effective communication and by ensuring that they do not find out what others have paid for a product. However, the greater price transparency and ease with which information is swapped on the Internet makes other analysts doubtful. What will stop people in chat rooms from comparing notes on the amounts of the coupons they have received and from speculating about what purchasing habits have contributed to those differing amounts? Are consumers going to be any less irate about receiving a different coupon amount based upon personal information the merchant has gathered about them?

Consumer concern about the use of personal data could eventually lead to a consumer advocate movement to ban the practice. In fact, Jason Catlett, president of the consumer-advocate group Junkbusters, has already expressed concerns about Amazon and other companies using personal data “unfairly.” Catlett and his group believe that people should have control over their personal information and that Amazon should provide the option for customers to dissociate their identity from any or all transactions. Junkbusters supports legislation that would require companies to handle all personal information fairly, including explicit consent before information is collected, disclosed, or used for new purposes.

Other analysts speculate that consumers will be concerned about not only the use of personal data but also the lack of control over the price differential. Usually, the consumer has the choice to either clip or not clip coupons or to use a frequent-purchaser card, thereby giving implicit consent for data to be collected about them. The consumer can also choose to shop at a higher-priced merchant in order to receive superior service or decide the price they are willing to bid at an auction. In personal-value pricing, the coupon will be delivered to an already established customer’s e-mail box and a link to the site will be provided. Since presumably the consumer has already chosen the merchant for its service characteristics, control over the amount he or she pays for a product will be in the hands of the merchant. Secretive price discrimination appears to many critics to be contrary to the promise of e-commerce—namely, price transparency.


Benefits of Auctions

Aside from the sheer game-like fun of participating in auctions, consumers, merchants, and society as a whole derive a number of economic benefits from participating in Internet auctions. These benefits include:

- **Liquidity:** Sellers can find willing buyers, and buyers can find sellers. The Internet enormously increased the liquidity of traditional auctions that usually required
all participants to be present in a single room. Now, sellers and buyers can be located anywhere around the globe. Just as important, buyers and sellers can find a global market for rare items that would not have existed before the Internet.

- **Price discovery**: Buyers and sellers can quickly and efficiently develop prices for items that are difficult to assess, where the price depends on demand and supply, and where the product is rare. For instance, how could a merchant (or buyer) price a Greek oil lamp made in 550 B.C. (to use just one example of the rare items that can be found on eBay)? How could a consumer even find a Greek oil lamp without the Internet? It would be difficult and costly for all parties. In contrast, the Greek oil lamp pictured here was auctioned on eBay and attracted 17 bids ranging from a starting bid of $100 to a winning bid of $420.

- **Price transparency**: Public Internet auctions allow everyone in the world to see the asking and bidding prices for items. It is difficult for merchants to engage in

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**TABLE 13.1 LEADING ONLINE AUCTION SITES**

<table>
<thead>
<tr>
<th>General</th>
<th>Specialized</th>
</tr>
</thead>
<tbody>
<tr>
<td>eBay.com</td>
<td>Auctions.cnet.com</td>
</tr>
<tr>
<td>Auctions.amazon.com</td>
<td>Racersauctions.com</td>
</tr>
<tr>
<td>Auctions.yahoo.com</td>
<td>Philatelichphantasies.com</td>
</tr>
<tr>
<td>Auctions.msn.com</td>
<td>Teletrade.com</td>
</tr>
<tr>
<td>Auctions.lycos.com</td>
<td>Baseball-cards.com</td>
</tr>
<tr>
<td>Ubid.com</td>
<td>Oldandsold.com</td>
</tr>
<tr>
<td>Bid4Assets.com</td>
<td></td>
</tr>
<tr>
<td>AAANDS.com</td>
<td></td>
</tr>
</tbody>
</table>

*General*:
- eBay.com: The world market leader in auctions.
- Auctions.amazon.com: General consumer auctions.
- Auctions.yahoo.com: General consumer auctions.
- Auctions.msn.com: A wide variety of different online auction categories.
- Auctions.lycos.com: Outlet, specialty, and falling-prices auctions from a variety of merchants.
- Ubid.com: General mechanise.
- Bid4Assets.com: Liquidation of distressed assets.
- AAANDS.com: General consumer and specialty.

*Specialized*:
- Auctions.cnet.com: Computers, software, and electronics.
- Racersauctions.com: Specialized site for automobile racing parts.
- Philatelichphantasies.com: Stamp site for professionals.
- Teletrade.com: Certified coins.
- Baseball-cards.com: Weekly auctions of baseball, football, basketball, and hockey cards and photos.
- Oldandsold.com: Online auction service specializing in quality antiques.
price discrimination (charging some customers more) when the items are available on auctions. However, because even huge auction sites such as eBay do not include all the world's online auction items (there are other auction sites in the world), there still may be more than one world price for a given item (there are inter-market price differences).

- **Market efficiency**: Auctions can, and often do, lead to reduced prices, and hence reduced profits for merchants, leading to an increase in consumer welfare — one measure of market efficiency. Online auctions provide consumers the chance to find real bargains at potentially give-away prices; they also provide access to a very wide selection of goods that would be impossible for consumers to physically access by visiting stores.

- **Lower transaction costs**: Online auctions can lower the cost of selling and purchasing products, benefiting both merchants and consumers. Like other Internet markets, such as retail markets, Internet auctions have very low (but not zero) transaction costs. A sale at an auction can be consummated quickly and with very low transaction costs when compared to the physical world of markets.

- **Consumer aggregation**: Sellers benefit from large auction sites' ability to aggregate a large number of consumers who are motivated to purchase something in one market space. Auction-site search engines that lead consumers directly to the products they are seeking make it very likely that consumers who visit a specific auction really are interested and ready to buy at some price.

- **Network effects**: The larger an auction site becomes in terms of visitors and products for sale, the more valuable it becomes as a marketplace for everyone by providing liquidity and several other benefits listed above, such as lower transaction costs, higher efficiency, and better price transparency. For instance, because eBay is so large — garnering close to 90% of all C2C auction commerce in the United States — it is quite likely you will find what you want to buy at a good price, and highly probable you will find a buyer for just about anything.

### Risks and Costs of Auctions for Consumers and Businesses

There are a number of risks and costs involved in participating in auctions. In some cases, auction markets can fail — like all markets at times (we describe auction market failure in more detail later). Some of the more important risks and costs to keep in mind are:

- **Delayed consumption costs**: Internet auctions can go on for days, and shipping will take additional time. If you ordered from a mail order catalog, you would likely receive the product much faster, or if you went to a physical store you would be able to obtain the product immediately.

- **Monitoring costs**: Participation in auctions requires your time to monitor bidding.
• **Equipment costs**: Internet auctions require you to purchase a computer system, pay for Internet access, and learn a complex operating system.

• **Trust risks**: Online auctions are the single largest source of Internet fraud. Using auctions increases the risk of experiencing a loss.

• **Fulfillment costs**: Typically, the buyer pays fulfillment costs of packing, shipping, and insurance, whereas at a physical store these costs are included in the retail price.

Auction sites such as eBay have taken a number of steps to reduce consumer participation costs and trust risk. For instance, auction sites attempt to solve the trust problem by providing a rating system in which previous customers rate sellers based on their overall experience with the merchant. Although helpful, this solution does not always work — auction fraud is the leading source of e-commerce complaints to federal law enforcement officials. One partial solution to high monitoring costs is, ironically, fixed pricing: At eBay, consumers can reduce the cost of monitoring and waiting for auctions to end by simply clicking on the “Buy It Now!” button and paying a premium price. The difference between the “Buy It Now!” price and the auction price is the cost of monitoring. Also, most online auctions reduce monitoring costs by providing both a “watch list” and “proxy bidding.” **Watch lists** permit the consumer to monitor specific auctions of interest, requiring the consumer to pay close attention only in the last few minutes of bidding. **Proxy bidding** allows the consumer to enter a maximum price, and the auction software automatically bids for the goods up to that maximum price in small increments.

Nevertheless, given the costs of participating in online auctions, the generally lower cost of goods on Internet auctions is in large part a compensation for the other additional costs consumers experience. On the other hand, consumers experience lower search costs and transaction costs because there usually are no intermediaries (unless, of course, the seller is an online business operating on an auction site, in which case there is a middleman cost), and usually there are no local or state taxes.

Merchants face considerable risks and costs as well. At auctions, merchants may end up selling goods for prices far below what they might have achieved in conventional markets. Merchants also face risks of nonpayment, false bidding, bid rigging, monitoring, transaction fees charged by the auction site, credit card transaction processing fees, and the administration costs of entering price and product information. We will explore the benefits and risks for merchants later in this chapter.

### Market-Maker Benefits: Auctions as an E-commerce Business Model

Online auctions have been among the most successful business models in retail and B2B commerce. eBay, the Internet’s most lucrative auction site, has been profitable nearly since its inception (we will examine eBay’s financial success in the E-commerce in Action case study later in the chapter). Auction sites such as eBay earn revenues...
in several ways: transaction fees based on the amount of the sale, listing fees for display of goods, financial service fees from payment systems such as Billpoint, and advertising or placement fees in which sellers are charged extra for special services such as particular display or listing services.

However, it is on the cost side that online auctions have extraordinary advantages over ordinary retail or catalog sites. Auction sites carry no inventory and do not perform any fulfillment activities—they need no warehouses, shipping, or logistical facilities. Sellers and consumers provide these services and bear these costs. In this sense, online auctions are an ideal digital business because they involve simply the transfer of information.

Even though eBay has been extraordinarily successful, the success of online auctions is qualified by the fact that the marketplace for online auctions is highly concentrated, if not monopolistic. eBay dominates the online auction market, followed by Amazon Auctions; many of the smaller auction sites are not profitable because they lack sufficient sellers and buyers to achieve liquidity. In auctions, network effects are highly influential, and the tendency is for one or two very large auction sites to dominate, with hundreds of smaller specialty auction sites (sites that sell specialized goods such as stamps) being barely profitable.

**TYPES AND EXAMPLES OF AUCTIONS**

Auction theory is a well-established area of research, largely in economics (McAfee and McMillan, 1987; Milogram, 1989; Vickrey, 1961). Much of this research is theoretical, and prior to the emergence of public Internet auctions, there was not a great deal of empirical data on auctions or consumer behavior in auctions. Previous literature has identified a wide range of auction types, some of which are seller-biased, and others of which are more buyer-biased. Internet auctions are very different from traditional auctions (Morgan Stanley Dean Witter, 2000). Traditional auctions are relatively short-lived (such as in a Sotheby’s art auction), and have a fixed number of bidders, usually present in the same room. Online Internet auctions, in contrast, can go on much longer (a week), and have a variable number of bidders who come and go from the auction arena.

**Internet Auction Basics**

Before a business turns to auctions as a marketing channel, its managers need to understand some basic facts about online auctions.

**Market Power and Bias in Dynamically Priced Markets**

Dynamically priced markets are not always “fair” in the sense of distributing market power to influence prices. Figure 13.2 illustrates four different market bias situations that occur in dynamic markets.

In situations in which the number of buyers and sellers is few or equal in size, markets tend to be neutral, favoring neither the buyer nor the seller. One-on-one
negotiations, barter markets, and stock exchanges all have this quality of neutrality, although specialists and market makers exact a commission for matching buy and sell orders. In stock markets, which are sometimes called a “double auction” because bids and offers are made continuously, many sellers and buyers call out prices for bundles of stock (of which there is a very large supply) until a deal is struck. In contrast, auctions such as those run by eBay and Name Your Own Price auctions offered by companies such as Priceline have built-in biases. Usually on eBay, there is just one seller or a small number of sellers marketing goods in limited supply (or even rare goods) to millions of buyers who are competing on price. Priceline offers just the opposite bias and shares many features with a sealed-bid RFQ market (request for quote market). In Priceline’s auctions (described in greater detail below), buyers post their unique needs for goods and services and a price they are willing to pay, while many sellers compete against one another for the available business. Of course, inherent bias in a marketplace does not mean consumers and merchants cannot find “good deals” and thousands of motivated customers willing to purchase goods at profitable prices.

However, the inherent biases should provide cautions to both merchants and consumers; namely, goods in auctions sometimes sell for far above their fair market value as they get bid too high, and sometimes for far less than their fair market value as merchants become too desperate for business. Fair market value could be defined here as the average of prices for that product or service in a variety of dynamic and

**FIGURE 13.2 BIAS IN DYNAMICALLY PRICED MARKETS**

<table>
<thead>
<tr>
<th>BUYERS</th>
<th>SELLERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>One/Few</td>
<td>One/Few</td>
</tr>
<tr>
<td>Market Neutral (Negotiation)</td>
<td>Buyer Bias (Priceline and Sealed Bidding)</td>
</tr>
<tr>
<td>Many</td>
<td>Many</td>
</tr>
<tr>
<td>Seller Bias (eBay Auction)</td>
<td>Market Neutral (Stock Exchanges)</td>
</tr>
</tbody>
</table>

Dynamically priced markets can be either neutral or biased in favor of buyers or sellers.

---

**fair market value**

the average of prices for a product or service in a variety of dynamic and fixed-price markets around the world
fixed-price markets around the world. We will explore other auction market failures in a later section.

Price Allocation Rules: Uniform vs. Discriminatory Pricing There are different rules for establishing the winning bids and prices in auctions where there are multiple units for sale, say, ten IBM laptop PCs. With a uniform pricing rule, there are multiple winners and they all pay the same price (usually the lowest winning bid — sometimes called a market clearing price). Other auctions use discriminatory pricing in which winners pay different amounts depending on what they bid. Like so many other auction rules, price allocation can change bidding strategy in auctions. For instance, in a uniform pricing auction for ten IBM laptops, you may bid a very high price for a few units, knowing that others will not follow, but you will only pay a price equal to the lowest winning bid needed to clear out the units from the market. The person who bid for the tenth unit may have only bid 75% as high as your offer. Nevertheless, that is the price you will actually pay — the price needed to “clear the market” of all units. However, under a discriminatory pricing rule, you would be forced to pay your high bid. Obviously, from a buyer’s point of view, uniform pricing is better, but from a merchant’s point of view, discriminatory pricing is much better.

Public vs. Private Information in Dynamically Priced Markets In some dynamic markets, the prices being bid are secret, and are known only to one party. For instance, a firm may issue a request for bid to electrical contractors for provision of electrical service on a new building. Bidders are requested to submit sealed bids, and the lowest bidder (subject to qualification) will be the winner. In this instance, the bidders do not know what others are bidding, and must bid their “best” price. The danger here is bid rigging, in which bidders communicate prior to submitting their bids, and rig their bids to ensure that the lowest price is higher than it might otherwise be (which benefits the bidder, who in this instance is receiving the bid price as payment for services to be rendered). This is a common problem in sealed bid markets. However, in auction markets, bid prices are usually public information, available to all. Here the risks are that bidders agree offline to limit their bids, or that sellers use shills to submit false bids, or use the market itself as a signaling device, driving prices up. Open markets permit large players to signal prices or engage in price matching, where sellers agree informally or formally to set floor prices on auction items below which they will not sell. Generally such collusion exists on the sell side, where there are just a few sellers or auction houses in a position to fix prices.

Types of Auctions

Now that you have learned some basic auction market rules and practices, it's time to consider some of the major forms of dynamically priced markets and auctions, both online and offline. Table 13.2 describes the major types of auctions, how they work, and their biases.
### Table 13.2 Types of Auctions and Dynamic Pricing Mechanisms

<table>
<thead>
<tr>
<th>Auction Type</th>
<th>Mechanism</th>
<th>Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealed bid market (B2B e-procurement — Ariba CommerceNet; eBay’s elance.com)</td>
<td>Sealed-bid auction, requests for quote (RFQs). Winner is chosen from lowest bidders at acceptable quality levels.</td>
<td>Buyer bias: Multiple vendors competing against one another.</td>
</tr>
<tr>
<td>Vickrey auction (Private auction)</td>
<td>Sealed-bid auction, single unit; highest bidder wins at the second-highest bid price.</td>
<td>Seller bias: Single seller and multiple buyers competing against one another.</td>
</tr>
<tr>
<td>English auction (eBay.com)</td>
<td>Public ascending price, single unit; highest bidder wins at a price just above the second highest bid. Buyers can skip bidding at each price, but return at higher prices.</td>
<td>Seller bias: Single seller and multiple buyers competing against one another.</td>
</tr>
<tr>
<td>Dutch-traditional (Dutch Flower Market)</td>
<td>Public descending-price auction, single unit; seller lowers price until a buyer takes the product.</td>
<td>Seller bias: Single seller, and multiple buyers competing against one another.</td>
</tr>
<tr>
<td>Dutch-Internet (eBay.com Dutch auction)</td>
<td>Public ascending price, multiple unit. Buyers bid on quantity and price. Final per-unit price is lowest successful bid, which sets a uniform price for all higher bidders as well (uniform pricing rule).</td>
<td>Seller bias: Seller bias: Single seller and multiple buyers competing against one another.</td>
</tr>
<tr>
<td>Japanese auction (Private auction)</td>
<td>Public ascending price, single unit; highest bidder wins at a price just above second-highest bid (reservation price) and buyers must bid at each price to stay in auction.</td>
<td>Seller bias: Single seller and multiple buyers competing against one another.</td>
</tr>
<tr>
<td>Yankee auction-Internet (variation on Dutch auction)</td>
<td>Public ascending price, multiple unit. Buyers bid on quantity and price per unit, units, and time. Winners pay their actual bid prices (discriminatory pricing rule).</td>
<td>Seller bias: Single seller and multiple buyers competing against one another.</td>
</tr>
<tr>
<td>Reverse auction (Freemarkets.com)</td>
<td>Public reverse English auction, descending prices, single unit. Sellers bid on price to provide products or services; winning bid is the lowest-price provider. Similar to sealed bid markets.</td>
<td>Buyer bias: Multiple sellers competing against one another.</td>
</tr>
<tr>
<td>Group buying (Buyers.gov)</td>
<td>Public reverse auction, descending prices, multiple units. Buyers bid on price per unit and units. Groups of sellers bid on price; winning bid is lowest-price provider.</td>
<td>Buyer bias: Multiple sellers competing against one another.</td>
</tr>
<tr>
<td>Name Your Own Price (Priceline.com)</td>
<td>Similar to a reverse auction except the price the consumer is willing to pay is fixed and the price offered is nonpublic. Requires a commitment to purchase at the first offered price.</td>
<td>Buyer bias: Multiple sellers competing against one another for an individual’s business.</td>
</tr>
<tr>
<td>Double auction (NASDAQ and stock markets)</td>
<td>Public bid-ask negotiation; sellers ask, buyers bid. Sale consummated when participants agree on price and quantity.</td>
<td>Neutral: Multiple buyers and sellers competing against one another. Market bias: trading specialists (matchmakers)</td>
</tr>
</tbody>
</table>

**NOTE:** “Public” means all participants can observe prices offered.
As you can see in Table 13.2, aside from the different formats and rules, there are many other differences among auctions. As noted above, there are both discriminatory and uniform pricing rules, although the latter seem to be most common. Also, in some auctions there are multiple units for sale, whereas in others there is only a single unit for sale. The major types of Internet auctions are English, Dutch-Internet, Name Your Own Price, and Group Buying.

**English Auctions**  **English auctions** are the easiest to understand and the most common form of auction on eBay.com. Typically, there is a single item up for sale from a single seller. There is a time limit when the auction ends, a reserve price below which the seller will not sell (usually secret), and a minimum incremental bid set. Multiple buyers bid against one another until the auction time limit is reached. The highest bidder wins the item (if the reserve price of the seller has been met or exceeded). English auctions are considered to be seller-biased because multiple buyers compete against one another — usually anonymously.
Dutch-Internet Auctions  Dutch-Internet auctions are typically used by sellers with many identical items to sell. Sellers start by listing a minimum price, or starting bid for one item, and the number of items for sale. Bidders specify both a bid price and the quantity they want to buy. Uniform price reigns: Winning bidders pay the same price per item, which is the lowest successful bid. This market clearing price can be less than some bids. If there are more buyers than items, the earliest successful bids get the goods. In general, high bidders get the quantity they want at the lowest successful price, whereas low successful bidders might not get the quantity they want (but they will get something). The action is usually quite rapid, and proxy bidding is not used. Table 13.3 shows closing data from a sample Dutch-Internet auction for a bundle of laptop computers.

In Table 13.3, the bids are arranged by price and then quantity. Under a uniform pricing rule, the lowest winning bid that clears the market of all ten laptops is $410 and all winners pay this amount. However, the lowest winning bidder, jbt911, will only receive three laptops, not four, because higher bidders are given their full allotments. Single unit descending-price auctions are also available at many sites.

Name Your Own Price Auctions  Auctions pioneered by Priceline are the second most popular auction format on the Web. Although Priceline also acts as an intermediary, buying blocks of airline tickets and vacation packages at a discount and selling them at a reduced retail price or matching its inventory to bidders, it is best known for its

<table>
<thead>
<tr>
<th>TABLE 13.3</th>
<th>A MULTI-UNIT DUTCH-INTERNET AUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLOSING AUCTION DATA</td>
<td></td>
</tr>
<tr>
<td>Lot</td>
<td>34590</td>
</tr>
<tr>
<td>Total Number of Units</td>
<td>10</td>
</tr>
<tr>
<td>Description</td>
<td>IBM Thinkpad 600 Laptop</td>
</tr>
<tr>
<td>Asking Price</td>
<td>$500</td>
</tr>
<tr>
<td>BIDDER</td>
<td>DATE</td>
</tr>
<tr>
<td>plj2345</td>
<td>12/1/01</td>
</tr>
<tr>
<td>kcl444</td>
<td>12/1/01</td>
</tr>
<tr>
<td>jbt911</td>
<td>12/1/01</td>
</tr>
<tr>
<td>Viper1</td>
<td>12/1/01</td>
</tr>
<tr>
<td>Chronos52</td>
<td>12/1/01</td>
</tr>
<tr>
<td>RSF34</td>
<td>12/1/01</td>
</tr>
</tbody>
</table>
Name Your Own Price auctions, where users specify what they are willing to pay for goods or services, and multiple providers bid for their business. Prices do not descend and are fixed: The initial consumer offer is a commitment to purchase at that price.

Table 13.4 describes the products and services available in Priceline’s Name Your Own Price auctions. Clearly a major attraction of Priceline is that it offers consumers a market biased in their favor and very low prices, up to 40% off. Brand-name suppliers compete with one another to supply services to consumers. However, it is unclear at this time if the Priceline business model can extend to other categories of products. We discuss Priceline’s business model in depth in the Chapter 2 case study.

**Group Buying Auctions: Demand Aggregators** Demand aggregators facilitate group buying of products at dynamically adjusted discount prices based on high-volume purchases. The originator of demand aggregation was Mercata.com, formed in 1998, and the Web’s largest retail demand aggregator until it ceased operations in January 2001, when needed venture capital financing did not materialize. Mercata holds several patents covering online demand aggregation. The largest supplier today of demand aggregation software is Accompany (formerly MobShop). Accompany’s demand aggregation software is being used by CommerceOne’s Global Trading Web, and by the U.S. government’s Buyers.gov business and auction exchange. Buyers.gov is an example of e-government commerce, or B2G (business to government commerce).
In demand aggregation group buying applications, a market maker selects a product that he or she believes many customers would like to purchase. For instance, a demand aggregator may select paper as the product, and establish an opening price. Customers of the site enter their order quantities. Suppliers monitoring the selection and order volume bid against one another to become the sole supplier. Prices move down as suppliers compete for a growing size order.

Online demand aggregation is built on two principles. First, sellers are more likely to offer discounts to buyers purchasing in volume, and, second, buyers increase their purchases as prices fall. Prices are expected to dynamically adjust to the volume of the order and the motivations of the vendors.

Although online sites dedicated to retail group buying were not a commercial success, the software and business practices have been integrated into B2B and B2G sites as one of many dynamic-pricing mechanisms. In general, demand aggregation is suitable for MRO products that are frequently purchased by a large number of organizations in high volume.

**Professional Service Auctions** Perhaps one of the more interesting new uses for auctions on the Web is eBay's marketplace for professional services, elance.com. This auction is a sealed-bid, dynamic-priced market for freelance professional services.
from legal and marketing to graphics design and programming services. Firms looking for professional services post a project description and request for bid on elance.com. Providers of services bid for the work. The buyer can choose from among bidders on the basis of both cost and perceived quality of the providers, which can be gauged from the feedback of clients posted on the site. This type of auction is a reverse Vickrey-like auction where sealed bids are submitted and the winner is usually the low-cost provider of services.

**Auction Aggregators (Mega Auctions)** With thousands of auctions available on the Web, how can you, your customers, or your business find the right auction for products of interest that you want to either buy or sell? Auction aggregators (sometimes called *mega auctions*) offer one solution to this problem of multiple Internet markets and inter-market price differences. Auction aggregators use computer programs to search thousands of Web auction sites, scouring up information on products, bids, auction duration, and bid increments. Consumers search auction aggregator sites for products of interest, and the site returns a list of both fixed-price sales locations and auction locations where the product is for sale. Table 13.5 lists some leading auction aggregators.

Auction aggregators work by sending web crawlers to thousands of auction sites every night (and on some sites during the day as well), gathering all information on product listings — just like an ordinary single consumer would. Because eBay.com accounts for more than 70% of consumer Internet auction transactions, and Amazon and Yahoo account for much of the rest of the volume, they receive the most attention from auction aggregators.

<table>
<thead>
<tr>
<th><strong>TABLE 13.5</strong> LEADING AUCTION AGGREGATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AuctionsOnTheNet.com</strong> Site that permits searches for specific types of auctions as well as specific products; monitors over 400 auction sites. Advertiser-supported.</td>
</tr>
<tr>
<td><strong>BidXS.com</strong> Meta-auction site that aggregates products at auction from over 300 auction sites. Commission-supported.</td>
</tr>
<tr>
<td><strong>Bidfind.com</strong> Aggregator of dynamic-priced sites and products. Commission-supported.</td>
</tr>
<tr>
<td><strong>AuctionWatch.com</strong> Aggregator of online auction sites. Services supplier to sellers. Commission- and services-supported. 500,000 registered users, 2 million auction images served per day.</td>
</tr>
<tr>
<td><strong>Internetauctionlist.com</strong> Aggregator of online auctions and auction sites. Searches 2,640 auction sites each day.</td>
</tr>
</tbody>
</table>
eBay has opposed efforts by unlicensed aggregators to access its site. In May 2000, eBay obtained a federal court injunction against Biddersedge.com, an auction site aggregator. eBay claimed that the Biddersedge.com crawler, in accessing the eBay site more than 100,000 times a day, had trespassed on eBay's property, impaired site performance, violated copyrights and other intellectual property protections, misappropriated eBay's information, and committed computer fraud. As a result of the injunction, Biddersedge.com closed its site and redirected traffic to BidXS.com, which had a license from eBay to search eBay's site for the purpose of developing aggregation services for consumers. eBay and Biddersedge settled their suit in March 2001 with Biddersedge agreeing to pay a licensing fee to eBay. eBay established for itself and other auction sites the right to deny unlicensed aggregators access to online auction listings via software devices such as crawlers and robots on the grounds of trespass (but not copyright infringement) and impairment of use (Saliba, 2001).

**Auction Solution Providers for Businesses**

Given that there are thousands of auction sites, and that you or your business may want to sell your goods on many of these sites, you will need to find a way to manage the complexity of auction participation. For instance, you may want to hold auctions on your own site rather than use Yahoo's or eBay's auctions. Rather than attempt to create auction software, you can turn to a software provider with ready-to-use software for this purpose. You can also find assistance if you wish to list your products in several auctions at once. To participate in an auction, businesses need to transfer product description, price, availability, and quality information to each auction site. To do this for hundreds of sites would be very costly. However, a number of software solution providers have developed tools that allow a business to transfer information from their product database directly to hundreds of auction sites automatically, and to host auctions as well. Table 13.6 describes some of these solution providers and their products.

**WHEN TO USE AUCTIONS (AND FOR WHAT) IN BUSINESS**

There are many different situations in which auctions are an appropriate channel for businesses to consider. For much of this chapter we have looked at auctions from a consumer point of view. The objective of consumers is to receive the greatest value for the lowest cost. Switch perspectives now to that of a business. Remember the objective for businesses using auctions is to maximize their revenue (their share of consumer surplus) by finding the true market value of products and services, a market value that hopefully is higher in the auction channel than in fixed-price channels. Table 13.7 provides an overview of factors to consider.

The factors to consider include:

- **Type of Product:** Online auctions are most commonly used for rare and unique products for which prices are difficult to discover, and there may have been no
market for the goods. However, Priceline.com has succeeded in developing auctions for perishable commodities (such as airline seats) for which retail prices have already been established, and some B2B auctions involve commodities such as steel (often sold at distress prices). New clothing items, new digital cameras, and new computers are generally not sold at auction because their prices are easy to discover; catalog prices are high, sustainable, and profitable; they are not perish-

<table>
<thead>
<tr>
<th>SOLUTION PROVIDERS</th>
<th>SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AuctionWatch.com</td>
<td>Auction management and coordination on multiple sites. Integrates with ERP systems.</td>
</tr>
<tr>
<td>Auctionworks.com</td>
<td>Web-based auction management platform, with storefronts, and toolset for sales monitoring.</td>
</tr>
<tr>
<td>ChannelAdvisor.com</td>
<td>Branded marketplace for overstocked goods; integrates with existing databases.</td>
</tr>
<tr>
<td>FairMarket.com</td>
<td>Software for hosting auctions on your site, with complete management and pricing support.</td>
</tr>
<tr>
<td>Andale.com</td>
<td>Integrated suite of tools for coordinating auctions on multiple sites.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CONSIDERATIONS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of product</td>
<td>Rare, unique, commodity, perishable</td>
</tr>
<tr>
<td>Stage of product life cycle</td>
<td>Early, mature, late</td>
</tr>
<tr>
<td>Channel-management issues</td>
<td>Conflict with retail distributors; differentiation</td>
</tr>
<tr>
<td>Type of auction</td>
<td>Seller vs. buyer bias</td>
</tr>
<tr>
<td>Initial pricing</td>
<td>Low vs. high</td>
</tr>
<tr>
<td>Bid increment amounts</td>
<td>Low vs. high</td>
</tr>
<tr>
<td>Auction length</td>
<td>Short vs. long</td>
</tr>
<tr>
<td>Number of items</td>
<td>Single vs. multiple</td>
</tr>
<tr>
<td>Price-allocation rule</td>
<td>Uniform vs. discriminatory</td>
</tr>
<tr>
<td>Information sharing</td>
<td>Closed vs. open bidding</td>
</tr>
</tbody>
</table>
able; and there exists an efficient market channel in the form of retail stores (online and offline).

- **Product Life Cycle:** For the most part, businesses have traditionally used auctions for goods at the end of their product life cycle and for products where auctions yield a higher price than fixed-price liquidation sales. However, we can expect in the future that many products will be sold in dynamically priced markets at the very beginning of their life cycle. Early releases of music, books, videos, games, and digital appliances could probably be sold to highly motivated early adopters who want to be the first in their neighborhood with new products. Event tickets have been experimentally sold at auction with great success. From July to August 2000, @TheMoment.com, a provider of dynamic pricing solutions, partnered with the Seattle Mariners baseball team and Ticketmaster to auction tickets. The auction created such excitement among fans that all of the high-quality Charter seats sold for 178% higher than their normal fixed price, whereas the bleacher seating did not sell well, and sold below their face value (Jupiter Media Metrix, 2001a).

- **Channel Management:** Established retailers such as JCPenney and Wal-Mart, and manufacturers in general, must be careful not to allow their auction activity to interfere with their existing profitable channels. For this reason, items found on established retail-site auctions tend to be late in their product life cycle, or have quantity purchase requirements.

- **Type of Auction:** Sellers obviously should choose auctions where there are many buyers and only a few, or even one seller. English ascending-price auctions such as those at eBay.com are best for sellers because the more bidders, the higher the price tends to move.

- **Initial Pricing:** Research suggests that auction items should start out with low initial bid prices in order to encourage more bidders to bid (see Bid Increments below). The lower the price, the larger the number of bidders will appear. The larger the number of bidders, the higher the prices move.

- **Bid Increments:** It is generally safest to keep bid increments low so as to increase the number of bidders and the frequency of their bids. If bidders can be convinced that for just a few more dollars they can win the auction, then they will tend to make the higher bid and forget about the total amount they are bidding.

- **Auction Length:** In general, the longer auctions are scheduled, the larger the number of bidders and the higher the prices will go. However, once the new bid arrival rate drops off and approaches zero, bid prices stabilize. Most eBay auctions are scheduled for three days.

- **Number of Items:** When a business has a number of items to sell, buyers usually expect a “volume discount,” and this expectation can cause lower bids in return. Therefore, sellers should consider breaking up very large bundles into smaller bundles auctioned at different times.
• **Price Allocation Rule:** Most buyers believe it is “fair” that everyone pay the same price in a multi-unit auction, and a uniform pricing rule is recommended. eBay.com Dutch Internet auctions encourage this expectation. The idea that some buyers should pay more based on their differential need for the product is not widely supported. Therefore, sellers who want to price discriminate should do so by holding auctions for the same goods on different auction markets, or at different times, to prevent direct price comparison.

• **Closed vs. Open Bidding:** Closed bidding has many advantages for the seller, and sellers should use this approach where possible because it permits price discrimination without offending buyers. However, open bidding carries the advantage of “herd effects” (described below) in which consumers’ competitive instincts to “win” drive prices higher than even secret bidding would achieve.

**SELLER AND CONSUMER BEHAVIOR AT AUCTIONS**

In addition to these structural considerations, you should also consider the behavior of consumers at auction sites. Research on consumer behavior at online auction sites is growing, but is still in its infancy. However, early research has produced some interesting findings.

**Seller Profits: Arrival Rate, Auction Length, and Number of Units**

The profit to the seller is a function of the arrival rate, auction length, and the number of units for auction. However, each of these relationships suffers a declining return to scale and rapidly falls off after an optimal point is reached (Vakrat and Seidman, 1998; 1999) (see Figure 13.3). For this reason, in real-world auctions on eBay.com, sellers with a large number of units to sell, say, hundreds of PC laptops, usually have multiple concurrent auctions with about ten units for sale in each auction, with a duration of three days. The auction is just long enough to attract most of the likely bidders, but not so long as to run up the cost of posting the auction beyond a profitable level. The more popular an auction (the more bidders who arrive), the longer an auction should be, up to the point where the costs of maintaining the auction listing outweigh the additional profit brought by the last bidder. These dynamics suggest a kind of bidding frenzy for popular items, in which the prices bid depend on the number of bidders, length of time, and units offered.

**Auction Prices: Are They the Lowest?**

It is widely assumed that auction prices are lower than prices in other fixed-price markets. Empirical evidence is mixed on this assumption. Vankrat and Seidman (1999) found prices at auction were 25% lower on average than prices for the identical goods found in catalogs operated by the same retailers. Brynjolfsson and Smith (2001) also found that auction prices for CDs were lower than online store prices. Lee found,
however, that auction prices for used cars in Japan on the AUCNET auction site were actually higher than fixed-price markets in part because the quality of cars on the auction site was higher than cars found in car lots (Lee et al., 1999–2000).

There are many reasons why auction prices might be higher than those in fixed-price markets for items of identical quality, and why auction prices in one auction market may be higher than those in other auction markets. A considerable body of previous research has shown that consumers are not driven by value maximization, but instead are influenced by many situational factors, irrelevant and wrong information, and misperceptions when they make market decisions (Simonson and Tversky, 1992). Auctions are social events, shared social environments, where bidders adjust to one another (Hanson and Putler, 1996). Briefly, bidders base their bids on what others previously bid, and this can lead to an upward cascading effect (Arkes and Hutzel, 2000).

The auctioneer’s profit is determined by the arrival rate at the auction \( (p) \), and the length of the auction \( (t) \). Profitability rises rapidly at first, but then falls off rapidly as costs rise. Profits also rise with the number of units auctioned up to a maximum point, and then fall off rapidly.

*SOURCE: Vakrat and Seidman, 1998.*
In a study of hundreds of eBay.com auctions for Sony Playstations, CD players, Mexican pottery, and Italian silk ties, Dholakia and Soltysinski (2001) found that bidders exhibited **herd behavior** (the tendency to gravitate toward, and bid for, auction listings with one or more existing bids) by making multiple bids on some auctions (coveted comparables), and making no bids at auctions for comparable items (overlooked comparables). Herd behavior was lower for products where there was more agreement and more objective clues on the value of the products — Sony Playstations, for instance, compared to Italian silk ties. Herd behavior resulted in consumers paying higher prices than necessary for reasons having no foundation in economic reality.

The behavioral reality of participating in auctions can produce many unintended results. Winners can suffer **winner’s regret,** the feeling after winning an auction that they paid too much for an item, which indicates that their winning bid does not reflect what they thought the item was worth but rather what the second bidder thought the item was worth. Sellers can experience **seller’s lament,** reflecting the fact that they sold an item at a price just above the second place bidder, never knowing how much the ultimate winner might have paid or the true value to the final winner. Auction losers can experience **loser’s lament,** the feeling of having been too cheap in bidding and failing to win. In summary, auctions can lead to both winners paying too much and sellers receiving too little. Both of these outcomes can be minimized when sellers and buyers have a very clear understanding of the prices for items in a variety of different online and offline markets.

**Consumer Trust in Auctions**

There is considerable evidence that consumers are motivated by more than price in auctions, just as they are in fixed-price markets. Shopping bot sites report that less than 50% of their users actually buy the product from the lowest-price supplier. A Jupiter Media Metrix survey found that 63% of veteran online shoppers search the Web for the lowest prices, but actually buy the product elsewhere on the Web; 79% of online shoppers say they are willing to pay “a bit more” for a quality product, 48% say they would prefer to buy from a reliable source even if it means paying a bit more, and 63% say they shop at the same online stores regularly (Jupiter Media Metrix, 2001a). These findings about the role of brand and trust in consumer behavior can also be found in auction research. Dewan and Hsu (2001) found that online specialty auctions for stamps such as Michael Rogers Inc. produced higher prices for similar products than eBay.com because consumers at the Rogers site were willing to pay for additional “trust” services such as inspection, guarantees of authenticity, and escrow agents. eBay.com’s trust services such as Seller Reputation ratings have only a small impact on eBay’s prices, suggesting this trust mechanism is not as powerful as is commonly assumed (Lucking-Reiley, et al., 2000). Because of the powerful role that trust plays in online consumer behavior, eBay and most auction sites make considerable efforts to develop automated
trust-enhancing mechanisms such as seller and buyer ratings, escrow services, and authenticity guarantees (see below).

**WHEN AUCTION MARKETS FAIL: FRAUD AND ABUSE IN AUCTIONS**

Markets fail to produce socially desirable outcomes (maximizing consumer welfare) in four situations: information asymmetry, monopoly power, public goods, and externalities.

Online and offline auction markets are particularly prone to fraud, which produces information asymmetries between sellers and buyers and among buyers, which in turn causes auction markets to fail. According to the National Consumers League, 78% of Internet fraud in 2000 occurred at online auctions, the most common frauds being merchants’ failure to deliver after payment and consumers failing to pay after shipment (www.fraud.org). The average loss was $310 and the most common fraudulent payment mechanisms were money orders (48%), checks (39%), and credit cards (6%). The Federal Trade Commission received 25,000 complaints of Internet fraud last year, and 10,800 of these concerned auctions. The Director of Marketing Practices at the FTC suggested that consumers using online auctions should never pay directly but should always use an escrow service (Schwartz, 2001). However, this data fails to measure the overall extent of auction fraud. eBay has compiled a list of 28 different types of auction fraud organized into five categories. Table 13.8 lists the most common and important frauds.

eBay and many other auction sites have investigation units that receive complaints from consumers and investigate reported abuses. Nevertheless, with 5 million visitors per week, and hundreds of thousands of auctions to monitor, eBay is highly dependent on the good faith of sellers and consumers to follow the rules.

**E-COMMERCE IN ACTION: EBAY.COM**

eBay.com is the world’s largest and most popular online auction, linking more than 35 million buyers and sellers from around the world as of September 30, 2001. eBay is one of the real e-commerce success stories. You can find an E-commerce in Action case examining eBay in depth on www.LearnE-commerce.net.

**13.2 E-COMMERCE PORTALS**

*Port: From the Latin porta, an entrance or gateway to a locality*

Portals are the most frequently visited sites on the Web if only because they typically are the first page to which many users point their browser on start-up. The top
### TABLE 13.8 eBay’s List of Auction Frauds

<table>
<thead>
<tr>
<th>Type of Fraud</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feedback Offenses</strong></td>
<td></td>
</tr>
<tr>
<td>Shill feedback, defensive</td>
<td>Using secondary eBay IDs or other eBay members to inflate seller ratings</td>
</tr>
<tr>
<td>Shill feedback, offensive</td>
<td>Using secondary eBay IDs or other eBay members to deflate seller ratings (feedback bombs)</td>
</tr>
<tr>
<td>Feedback extortion</td>
<td>Threatening negative feedback in return for a benefit</td>
</tr>
<tr>
<td><strong>Buying Offenses</strong></td>
<td></td>
</tr>
<tr>
<td>Transaction interference</td>
<td>E-mailing buyers to warn them away from a seller</td>
</tr>
<tr>
<td>Bid manipulation (retraction)</td>
<td>Using the retraction option to make high bids, discovering the maximum bid of current high bidder, then retracting bid</td>
</tr>
<tr>
<td>Nonpayment after winning</td>
<td>Blocking legitimate buyers by bidding high, then not paying</td>
</tr>
<tr>
<td><strong>Selling Offenses</strong></td>
<td></td>
</tr>
<tr>
<td>Shill bidding</td>
<td>Using secondary user IDs or other eBay members to artificially raise the price of an item</td>
</tr>
<tr>
<td>Transaction nonperformance</td>
<td>Accepting payment and failing to deliver</td>
</tr>
<tr>
<td>Nonselling seller</td>
<td>Refusing payment, failure to deliver after a successful auction</td>
</tr>
<tr>
<td>Fee avoidance</td>
<td>Any of a variety of mechanisms for avoiding paying eBay listing fees</td>
</tr>
<tr>
<td><strong>Contact Information/Identity Offenses</strong></td>
<td></td>
</tr>
<tr>
<td>Misrepresentation of identity</td>
<td>Claiming to be an eBay employee; representing oneself as another eBay user; false contact information</td>
</tr>
<tr>
<td>Dead/invalid e-mail addresses</td>
<td>Providing false contact information</td>
</tr>
<tr>
<td><strong>Miscellaneous Offenses</strong></td>
<td></td>
</tr>
<tr>
<td>Interference with eBay site</td>
<td>Using any software program that would interfere with eBay operations</td>
</tr>
<tr>
<td>Bid siphoning product</td>
<td>E-mailing another seller’s bidders and offering the same for less</td>
</tr>
<tr>
<td>Sending spam</td>
<td>Sending unsolicited offers to bidders</td>
</tr>
</tbody>
</table>

**Source:** Compiled from eBay.com, 2001; ebay.com/help/community/investigates.html
portals such as AOL, Yahoo, and MSN have hundreds of millions of unique visitors worldwide each month. Web portal sites are gateways to the more than four billion Web pages available on the Internet. Perhaps the most important service provided by portals is that of helping people find the information they are looking for on the Web. Originally, in the beginning of the E-commerce I era, portals were search engines. Consumers would pass through portals on their way to rich, detailed, in-depth content on the Web. But portals have evolved into much more complex Web sites that provide news, entertainment, in-depth information, and education on a growing variety of topics. Portals today seek to be a sticky destination site, not merely a gateway through which visitors pass. In this respect, Web portals are very much like television networks: destination sites for content supported by advertising revenues. Portals today want visitors to stay a long time — the longer the better. Given the popularity of portals, one might think they are successful and profitable business models. For a variety of reasons, however, translating large Web audience share into profits has proved a daunting task.

Portals also serve important functions within a business or organization. Most corporations, universities, and other formal organizations have enterprise portals that help employees navigate to the enterprise’s human resource and corporate content such as corporate news and announcements. Increasingly, these enterprise portals also provide general purpose news and financial real-time feeds provided by content providers outside the organization, such as MSNBC News and generalized Web search capabilities.

**THE GROWTH AND EVOLUTION OF PORTALS**

As noted above, most of today’s well-known portals began as search engines. The initial function provided by portals such as Yahoo, Lycos, Excite, AltaVista, and others was to index Web page content and make this content available to users in a convenient form. Early portals expected visitors to stay only a few minutes at the site. As millions of people signed on to the Internet in the late 1990s, the number of visitors to basic search engine sites exploded commensurately. Search sites, recognizing the potential for commerce, expanded their offerings from simple navigation to include commerce (the sale of items directly from the Web site as well as advertising for other retail sites), content (in the form of news at first, and later in the form of weather, investments, games, health, and other subject matter), and distribution of others’ content. These three characteristics have become the basic definition of portal sites in 2001, namely, sites that provide three functions: navigation of the Web, commerce, and content (see Table 13.9).

Because the value of portals to advertisers and content owners is largely a function of the size of the audience each portal reaches, portals compete with one another on reach and unique visitors. Reach is defined as the percentage of the Web audience...
that visits the site in a month (or some other time period), and unique visitors is defined as the number of uniquely identified individuals who visit in a month. Portals are inevitably subject to network effects: The value of the portal to advertisers and consumers increases geometrically as reach increases, which, in turn, attracts still more customers. These effects have resulted in the differentiation of the portal marketplace into three tiers: a few general purpose mega portal sites that garner 40%–60% of the Web audience, second-tier general purpose sites that hover around 20%–30% reach, and third-tier specialized vertical market portals that attract 2%–10% of the audience. Figure 13.4 illustrates the concentration of audience share for the top portal sites. Note that reach is highly concentrated among the top three portal sites: Yahoo, MSN (Microsoft Network), and AOL (America Online). Google is included in the figure because although it continues to pursue a pure search engine strategy, it nevertheless acts as a gateway for millions of people to the Web, and in that sense, functions as a portal.

Essentially, the portal market is dominated by three successful players: Yahoo, MSN, and AOL. (At the time of writing, Yahoo has the strongest offering, and has shown great strength in Europe, where in several countries it is one of the leading portals and overall ranks second just behind MSN.

Yahoo’s services are available to anyone with a standard browser and without a monthly subscription fee. AOL — often thought of as the leading Web portal site — continues to pursue a proprietary strategy with many of its offerings available only to subscribers who pay a monthly fee. MSN — the Microsoft portal — is second only to Yahoo, with whom it is in a continuing public dispute over how to count market reach. The second tier of portal sites is composed of Lycos, Netscape, Google (which is pursuing a pure search engine strategy), NBCi, and AltaVista. Google is indeed an exception: Most other search engines sites have either gone out of business or segued into general purpose portal sites. Even though few Web users use Google as a home page portal, it has quickly risen to be one of the top search engines, and, in partnership with Yahoo, has extended its reach to include the Yahoo audience as well (although that audience is not counted in the Google reach total reported in Figure 13.4). Google has displaced

<table>
<thead>
<tr>
<th>TABLE 13.9</th>
<th>PORTAL SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>Navigation</td>
<td>Search engine access to billions of Web pages and Web content</td>
</tr>
<tr>
<td>Commerce</td>
<td>Sales from the site directly; sales by third parties through advertising</td>
</tr>
<tr>
<td>Content</td>
<td>Information and knowledge</td>
</tr>
</tbody>
</table>

E-commerce Portals
AltaVista, one of the oldest and most powerful search engines, as the most popular pure search engine. Excite@Home's portal, Excite.com, was acquired by iWon.com after Excite@Home ceased operations in December 2001. For further information, read *Insight on Business: Death of a Portal—The Demise of Excite@Home*.

**TYPES OF PORTALS: GENERAL PURPOSE AND VERTICAL MARKET**

Two types of portals have emerged in E-commerce II: general purpose portals and vertical market portals. **General purpose portals** attempt to attract a very large general audience and then retain the audience on-site by providing in-depth vertical content channels. Some general purpose portals—such as MSN and AOL—also offer ISP services on a subscription basis, plus Web search engines, free e-mail, personal home pages, chat rooms, community building software, and bulletin boards. Vertical content channels on general purpose portal sites offer content in areas such as sports, finance, health, automobiles, and auctions.

**FIGURE 13.4 TOP PORTAL SITES IN THE UNITED STATES**

<table>
<thead>
<tr>
<th>Portal</th>
<th>Web Reach (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo</td>
<td>65.0</td>
</tr>
<tr>
<td>MSN</td>
<td>58.0</td>
</tr>
<tr>
<td>AOL</td>
<td>48.0</td>
</tr>
<tr>
<td>Lycos</td>
<td>30.0</td>
</tr>
<tr>
<td>Netscape</td>
<td>19.0</td>
</tr>
<tr>
<td>Google</td>
<td>17.0</td>
</tr>
<tr>
<td>Excite@Home</td>
<td>15.4</td>
</tr>
<tr>
<td>NBC</td>
<td>11.0</td>
</tr>
<tr>
<td>AltaVista</td>
<td>7.0</td>
</tr>
<tr>
<td>iVillage</td>
<td>5.0</td>
</tr>
<tr>
<td>CBS Sports</td>
<td>3.0</td>
</tr>
<tr>
<td>TheWeatherChannel.com</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Yahoo, MSN, and AOL are the top three portals.

NOTE: Because Web users visit more than one portal in a month, the percentage reach figures add up to more than 100%.

When Excite.com, one of the “oldest” Internet portal and search engines, and the @Home Network, a leading provider of broadband services, merged in May 1999, some analysts predicted it would revolutionize the way consumers viewed and interacted with communication, information, and entertainment services, by giving users access to the information they wanted, when they wanted it, whether they were using a PC, TV, or any other communications device. One of @Home’s primary goals was to accelerate broadband adoption by exposing the millions of Excite narrowband users to the benefits of the broadband platform. Analysts also speculated that the $6.7 billion buyout of Excite might clear the way for a closer working relationship between Excite@Home and Microsoft, because Microsoft was an investor in AT&T, which was a major shareholder of @Home.

Instead, by September of 2000, Excite chief executive George Bell, who became president of Excite@Home and later chairman and CEO, had resigned, and in January 2001, the company began the first of many rounds of job cuts. By midyear, several key executive vice presidents had resigned and the company had closed operations in France, Germany, and Spain. The situation became even bleaker in August and September of 2001, when Promethean Investment Group LLC, which managed two investment funds holding convertible notes issued by the company, demanded payment on $50 million in notes, and auditors Ernst and Young warned that there was “substantial doubt about the company’s ability to function as a going concern.” To make matters worse for Excite@Home, cable system owners Cox and Comcast Cable Communications notified the company that they would end their distribution agreements in June 2002. Finally, Excite@Home announced on September 28 that it would sell all of its broadband Internet access business assets to AT&T for $307 million and filed under Chapter 11 of the U.S. Bankruptcy Code to restructure its debt and operations. On December 4, 2001, Excite@Home said it would cease operations on Feb. 28, 2002 after obtaining $355 million from Comcast, Cox Communications, and other cable companies to keep running long enough for those carriers to set up their own broadband networks.

So how did all of the promise of the 1999 merger end in the demise of the company? Many factors may have played a part, including a clash of corporate cultures, the failure to develop a practical business strategy, poor acquisitions, sharply declining advertising revenue, the lack of a cohesive corporate mission, and the failure of broadband to grow as projected.

Excite in large part reflected the vibrant marketing and sales dot.com culture, while @Home saw itself as the older, more experienced, “cable guys.” Although at the time of the merger Excite had a positive cash flow, was flourishing as a portal second only to Yahoo, and in fact for the first year or so after the merger was the revenue supporter for the cable side of the business, analysts were warning that its stock price was stagnating and that Yahoo would soon outdistance all
competitors. In fact, many analysts are now saying that Excite never put forth a persuasive portal strategy. Some, including former Excite@Home managers, believed that portals themselves were not a valid business model.

However, Excite cannot be blamed for all of Excite@Home’s woes. In October 1999, the company purchased the online greeting card company, Blue Mountain Arts, for nearly $1 billion in cash and stock. Blue Mountain exemplifies the downfall of many E-commerce sites who failed to turn impressive customer bases into paying customers and significant advertising dollars. It was sold in mid-September 2001 for a paltry $35 million to rival American Greetings.

Insiders at Excite@Home have also noted that tension between Thomas Jermoluk, the original chairman and CEO of Excite@Home before Bell, and his more traditional managers also contributed to the problems. Jermoluk clashed with conservative AT&T executives and board members who were never thrilled with the merger to begin with. AT&T had inherited its controlling interest in Excite@Home through its acquisition of the cable TV firm Telecommunications Inc. (TCI) only a few months before the merger. Some analysts such as Robert Cringley are even saying now that AT&T may have deliberately caused the downfall of its subsidiary. Cringley says that @Home’s board failed from the start to understand that the corporate mission of the merged company should be to create a “kind of high-speed AOL that would crush AOL” largely because AT&T, its largest shareholder, backed off of the idea. Furthermore, AT&T spent millions of @Home’s dollars improving its network, a worthy pursuit, but one that exacerbated a cash crunch caused in part by media and advertising revenue declines of 62%.


**vertical market portals** attempt to attract highly focused, loyal audiences with a deep interest either in community or specialized content — from sports to the weather. In addition to their focused content, vertical market portals have recently begun adding many of the features found in general purpose portals.

The concentration of audience share in the portal market reflects (in addition to network effects) the limited time budget of consumers. This limited time budget works to the advantage of general purpose portals. Consumers have a finite amount of time to spend on the Web, and as a result, most consumers visit fewer than 30 unique domains each month (Jupiter Media Metrix, 2000). Facing limited time, con-
sumers concentrate their visits at sites that can satisfy a broad range of interests, from weather and travel information, to stocks, sports, and entertainment content. General purpose sites are initially advantaged by the finite consumer time budget.

General purpose sites such as Yahoo try to be all things to all people, and attract a broad audience with both generalized navigation services and also in-depth content and community efforts. Yet recent changes in consumer behavior on the Web show that increasingly consumers are spending less time “surfing the Web” and on general browsing, and more time doing focused searches, research, and affinity group surfing (Harmon, 2001). These trends will advantage special purpose, vertical market sites that can provide focused, in-depth community and content. iVillage.com, for instance, appeals to the affinity group of women with a broad range of topics and detailed in-depth coverage of issues concerning women. Affinity groups are described more fully in the following section on online communities but, generally, affinity groups are statistical aggregates of people that self-identify with one another to some material extent in their attitudes, values, beliefs, and behavior. For instance, Lutherans are an affinity group because they identify with the label, attend a common church, and share certain beliefs. Women are also an affinity group. Women share certain interests in a broad range of topics from finance, health, and child-rearing, to fashion, news, and opinion. CBS.Sportsline.com is a focused content-based site that contains in-depth information for sports fans across a range of affinity groups. For instance, both men and women are interested in sports.

As a general matter, the general purpose portals are very well-known brands, while the vertical content and affinity group portals tend to have less well-known brands. Figure 13.5 lists examples of general purpose portals and the two main types of vertical market portals.

**PORTAL BUSINESS MODELS**

Portals receive income from a number of different sources. The revenue base of portals is changing and dynamic, with some of the largest sources of revenue declining. Table 13.10 summarizes the major portal revenue sources.

ISP services revenue represents a sizable part of the revenue base for AOL, MSN, and some former portals such as Excite@Home that offered high speed cable modem access to the Web. AOL, for instance, provides Web access to more than 40% of the American audience, offering an easy-to-use interface and proprietary content to subscribers.

However, there are many competitors in the ISP space, including several thousand local and regional ISPs, and as the rate of new entrants to the Internet declines, ISP services are no longer considered a major area of revenue growth. Most growth in revenue during the E-commerce I period occurred in *general advertising revenue* and *portal tenancy deals*, in particular. In a portal tenancy arrangement, companies that
value having access to a huge, general Web audience pay millions of dollars to lock into long-term multiple-year deals in which they are guaranteed a number of impressions through premium placement on home pages and exclusive marketing relationships. For instance, drkoop.com, the health content site, paid AOL $89 million in 1999 in a four-year deal to become the exclusive provider of health information on AOL (drkoop.com, 1999). Portal sites also receive revenues from commissions on sales actually made through the site for customers who demand a “pay-for-results” marketing relationship, and by charging subscription fees for premium content.

The business strategies of both general and vertical portals are rapidly changing because of the decline in advertising revenues as well as changing Internet consumer

There are two general types of portals: general purpose and vertical market. Vertical market portals may be based on affinity groups or on focused content.
behavior. Advertising revenues on the Web are declining or static because of both advertiser discontent with results and the growing interest of Web users in highly targeted vertical content. As noted in Chapters 7 and 8, there is a direct relationship between the revenue derived from a customer and the focus of the customer segment (see Figure 13.6).

Many multimillion dollar portal tenancy deals provided millions of impressions, but far fewer qualified leads, and even less real revenue from sales. Therefore, advertisers are now bargaining for much lower-cost tenancy deals, sometimes bartering advertising at their physical stores for online advertising. Increasingly, advertisers are spending their money on vertical market sites, or on vertical portal channels under a general purpose portal umbrella. For instance, a sports shoe company such as Nike may gain millions of impressions (but few sales) by placing banner ads on the Yahoo home page. In contrast, Nike can make many more sales (but garner far fewer impressions) on the Yahoo sports vertical channel.

In addition, recent surveys indicate that with the growing sophistication of the Web audience, Web users are being far more selective in their choice of destinations. Only 5% of the Web audience “almost always stays at a portal site,” 10% never use a portal, 21% use portals only for searching, and another 23% only for quick information on a topic. The more focused the content a consumer is pursuing, the less likely a general portal will be used (see Figure 13.7).

The survival strategy for general purpose portals in E-commerce II is therefore to develop deep, rich, vertical content in order to reach customers at the site. The strategy for much smaller vertical market portals is to put together a collection of vertical portals to form a vertical portal network, a collection of deep, rich content sites. For instance, following the failure of its general purpose portal Go.com, Disney

<table>
<thead>
<tr>
<th>PORTAL REVENUE SOURCE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISP services</td>
<td>Providing Web access and e-mail services for a monthly fee.</td>
</tr>
<tr>
<td>General advertising</td>
<td>Charging for impressions delivered.</td>
</tr>
<tr>
<td>Tenancy deals</td>
<td>Fixed charge for guaranteed number of impressions, exclusive partnerships, “sole providers.”</td>
</tr>
<tr>
<td>Commissions on sales</td>
<td>Revenue based on sales at the site by independent providers.</td>
</tr>
<tr>
<td>Subscription fees</td>
<td>Charging for premium content.</td>
</tr>
</tbody>
</table>
is pursuing the development of its much more focused brands ABC.com, ABC-News.com, Disney.com, ESPN.com, and Family.com, and the creation of an “invisible” network of focused portals. These separate branded portals can nevertheless share facilities, services, and expertise, achieving scale economies available to the top three general portals.

The E-commerce in Action case examines how Yahoo! is adapting to changing consumer and advertiser behavior.

**E-COMMERCE IN ACTION: YAHOO! INC.**

Yahoo.com is the number one-ranked Web portal in terms of unique users, reach, and time spent, according to Nielsen/Net Ratings, with a worldwide user base of more than 210 million people and over 80 million active registered members. Yet in 2001 the company lost money as advertising revenues shrank and it is currently fighting to remain independent and make the transition from an online portal to a general media
and content company. You can find an E-commerce in Action case examining Yahoo in depth on www.LearnE-commerce.net.

### 13.3 ONLINE E-COMMERCE COMMUNITIES

The Internet was designed originally as a communications medium to connect scientists in computer science departments around the continental United States. From the beginning, the Internet was intended in part as a community building technology that would allow scientists to share data, knowledge, and opinions in a real-time online environment (see Chapter 3) (Hiltzik, 1999). The result of this early Internet was the first "virtual communities" (Rheingold, 1993). As the Internet grew in the late 1980s to include scientists from many disciplines and thousands of university campuses, thousands of virtual communities sprang up among small groups of scientists.
in very different disciplines who communicated regularly using Internet e-mail, listservs, and bulletin boards. The first articles and books on the new electronic communities began appearing in the mid-to-late 1980s (Kiesler et al. 1984; Kiesler, 1986). The best-known online community, The Well, was formed in San Francisco in 1985 by a small group of people who once shared an 1800-acre commune in Tennessee. The Well is a virtual community that now has thousands of members devoted to discussion, debate, advice, and help (Hafner, 1997; Rheingold, 1998). With the development of the Web in the early 1990s, millions of people began obtaining Internet accounts and Web e-mail, and the community-building impact of the Internet strengthened. By the late 1990s, the commercial value of online communities was recognized as a potential new business model (Hagel and Armstrong, 1997).

Today, community participation activity is one of the most common usages of the Internet. Over 80% of all Internet users — about 90 million Americans in the United States — have at one time or another contacted an online group, becoming what one report recently called “Cyber Groupies” (Horrigan, 2001).

WHAT IS A COMMUNITY? WHAT IS A VIRTUAL COMMUNITY?

What is a virtual community and how is it any different from, say, the non-virtual community where you grew up, or where you go to school or work? Sociologists, who frequently criticize modern society for having destroyed traditional communities, unfortunately have not given us very good definitions of community. One study examined 94 different sociological definitions of community and found four areas of agreement. Communities involve (a) a group of people, (b) shared social interaction, (c) common ties among members, and (d) people who share an area for some period of time (Hillery, 1955; Poplin, 1979). This will be our working definition of a community. Communities do not necessarily have shared goals, purposes, or intentions. Indeed, communities can be places where people just “hang out” and communicate.

Now it’s a short step to defining virtual community — an area online where people who share common ties can interact with one another. This definition is very close to that of Howard Rheingold — one of The Well’s early participants — who coined the term virtual communities as “cultural aggregations that emerge when enough people bump into each other often enough in cyberspace. It is a group of people who may or may not meet one another face to face, and who exchange words and ideas through mediation of computer bulletin boards and networks. . . . We do everything that people do when people get together, but we do it all with words on computer screens, leaving our bodies behind” (Rheingold, 1996).

There is an ongoing debate about the relative merits of virtual communities and ordinary communities (Kling and Jewett, 1994). Some argue that virtual communities are shallow, with weak social bonds; that they are artificial distractions that destroy ties to family, work, and other “third places” (family and work being the first two
places) such as pubs, bars, libraries, and coffee shops where real people in a physical community meet (Oldenberg, 1989; Castells, 1996). Others argue that virtual communities are an adequate, even superior, replacement for traditional communities and traditional third places because they are available 24x7, offer limitless interest areas for founding a community, and actually strengthen the bonds of families, local governments, work groups, and churches by lowering the cost of communications, association, and self-organization (Etzioni and Etzioni, 2000; Figallo, 1998). A recent report refers to online communities as "virtual third places" that strengthen existing local community ties and create new community bonds that can span the globe. The preponderance of evidence is that online communities have positive social consequences for individuals and existing community institutions such as churches, business groups, and educational institutions. The question before us is: How can virtual communities support e-commerce?

THE DIFFERENCE BETWEEN ONLINE COMMUNITIES AND PORTALS

As noted in Section 13.2, portals began as search engines and then added content, Internet, and e-commerce services. In order to survive, portals have added many
community-building features including chat groups, bulletin boards, free Web site
design and hosting, and other features that encourage visitors to stay on the site and
interact with others who share their interests. Yahoo, for instance, uses deep vertical
content features to retain its audience on site and maximize revenue opportunities.
Portals have begun to measure their success in terms of their community-like fea-
tures. Portals have moved toward becoming general community meeting places in an
effort to enlarge and retain audience share and increase revenues.

Similarly, sites that began as narrowly focused content or affinity group commu-
nity sites, such as iVillage.com, a site devoted to women’s issues, have added more
general portal-like services including general Web searching, general news, weather,
travel information, and a wide variety of e-commerce services, often provided by por-
tals seeking alliances. In short, communities and portals have moved closer together
and at times are indistinguishable from one another. Limited market research has
found that visitors to focused community groups go there for a purpose, and are often
annoyed by general portal-like features being offered (Jupiter Media Metrix, 2001).

THE GROWTH OF ONLINE COMMUNITIES

About 90 million Americans go online to participate in groups, joining an average of
four different groups over time (see Figure 13.8). Active cybergroupies tend to be
younger, more affluent, more educated, and more seasoned users of the Internet than
online nonparticipants. The broad levels of online community participation suggest
a revival and strengthening of community ties at both the local and national levels,
becoming a familiar “third place” for people to share interests, beliefs, and informa-
tion.

Although many online groups are Internet-based, many local community groups
also use the Internet to deepen the involvement of members and coordinate local
events. Over 40% of Internet users go online to seek out information about local stores,
35% for information on community events, and 30% for information on local govern-
ment. Thus, the Internet has both created purely online groups for members to join,
and has strengthened participation in local community groups (Horrigan, 2001).

COMMERCE AND COMMUNITIES: MORAL BOUNDARIES

When we first think about community we tend to think of friends, neighbors, col-
leagues at work, and institutions in our neighborhoods such as churches, pubs, coffee
shops, restaurants, and even buildings. We tend not to think of commercial activity
first. Nevertheless, real-world neighborhood communities thrive when there are
many small shops and businesses that cater to neighborhood tastes and needs —
everything from laundromats to grocery stores, health centers, restaurants, and gas
stations. Commerce is a vital element of physical neighborhood communities. In our
neighborhoods, however, commerce has its particular place. It is inappropriate to
bring commercial activity into the local school, or churches, or town meetings. Commerce is “opt-in,” visible, and voluntary in physical communities.

When the first virtual communities formed — such as The Well — there was a near prohibition on commerce or commercial messages. Early communities were devoted to discussion, debate, and sharing ideas — not commerce. In many virtual communities today, such as The Well and thousands of other online communities, commerce in the discussion groups remains forbidden. Because many of the discussion groups

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**Figure 13.8** THE GROUPS CYBERGROUPIES BELONG TO

There is an extraordinarily wide range of groups that Internet users belong to, ranging from trade associations and hobbyist groups to religious, community, and political groups.

can be entered by invitation only, those who attempt to violate the social norm against commercial messaging will be ostracized. The Well is currently supported by subscription fees — $15 per month. Efforts by marketers to use shills to drop favorable commercial comments in, say, chat rooms or bulletin boards, are roundly rejected in many virtual communities. But The Well — like so many other discussion-based communities — has not been able to survive or grow based on subscription fees alone and was recently sold to the Salon Group of sites, a decidedly commercial enterprise. Nevertheless, discussion groups on The Well are still for non-commercial fare.

As the Web evolved, many communities have formed with very public commercial goals. In these communities, participants expect to be exposed to commercial messages. Our focus in this chapter is on these communities with very public commercial goals and content, or what we call virtual commercial communities. Virtual commercial communities seek to generate revenues by attracting large audiences to their sites.

**TYPES OF ONLINE COMMUNITIES AND THEIR BUSINESS MODELS**

There are many types of online communities and many ways of classifying them. The Pew Report described above distinguished ten different varieties of communities (Horrigan, 2001; Armstrong and Hagel, 1996). Communities have different types of sponsors, and different kinds of members. For instance, some communities are created by firms for the exclusive use of their sales force or other employees (intra-firm communities or B2E — business to employee communities); others are built for suppliers and resellers (inter-organizational or B2B communities); and others are built by dedicated individuals for other similar persons with shared interests (P2P — people to people communities). In this chapter we will for the most part be discussing business to consumer (B2C) communities, although we also discuss briefly P2P communities of practice.

Table 13.11 describes in greater detail the five generic types of online communities: general, practice, interest, sponsored, and affinity. Each type of community can have a commercial intent or commercial consequence. We use this schema to explore the business models of commercial communities.

**General communities** offer members opportunities to interact with a general audience organized into general topics. Within the topics, members can find hundreds of specific discussion groups attended by thousands of like-minded members who share an interest in that topic. The purpose of the general community is to attract enough members to populate a wide range of topics and discussion groups. For instance, discussion groups on The Well are organized into 20 broad themes, and within these themes, into tens of specific conferences.

The business model of general communities is changing. Originally, many of these communities were avowedly noncommercial and subscription-based, but
increasingly they have been purchased by larger commercial portal sites that value
the larger audience and seek to attract the community audience to other commercial
activities at the portal. For instance, GeoCities has been sold to Yahoo, Tripod has been
sold to Lycos, and The Well has been sold to the Salon Group. As part of larger com-
mercial ventures, general interest virtual communities increasingly rely on advertis-
ing and tenancy/sponsorship deals to generate revenue.

**Practice communities** offer members focused discussion groups, help, informa-
tion, and knowledge relating to an area of shared practice. For instance, linux.org
is a nonprofit community for the open source movement, a worldwide global effort
involving thousands of programmers who develop computer code for the Linux oper-
ating system and share the results freely with all. Other online communities involve
artists, educators, art dealers, photographers, and nurses. Communities of practice are
generally nonprofit, and have no business model other than collecting enough rev-
enues from members through subscriptions, commissions on sales, limited advertis-
ing, and other fees to cover the cost of operations.

**Interest communities** offer members focused discussion groups based on a
shared interest in some specific subject, such as boats, horses, health, skiing, and
thousands of other topics. Because the audience for interest communities is neces-
sarily much smaller and more targeted, they have usually relied on advertising and
tenancy/sponsorship deals. Sites such as fool.com, military.com, and sailnet.com are

<table>
<thead>
<tr>
<th>TYPE OF COMMUNITY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>Online gathering place for general topical discussions and communication</td>
</tr>
<tr>
<td>Practice</td>
<td>Community of practitioners, creators of artifacts such as computer code or music.</td>
</tr>
<tr>
<td>Interest</td>
<td>Community built around a common interest, e.g., games, sports, music, politics, health, finance, foreign affairs, lifestyle.</td>
</tr>
<tr>
<td>Affinity</td>
<td>Community of members who self-identify with a demographic, or geographic category, e.g., women, African Americans, Arab Americans.</td>
</tr>
<tr>
<td>Sponsored</td>
<td>Community created by commercial, government, and nonprofit organizations for a variety of purposes; any site that uses community techniques to attract visitors, customers, and/or generate revenue.</td>
</tr>
</tbody>
</table>
examples of Web sites that attract people who share a common pursuit. Communities of interest often, but not always, have a commercial intent.

**Affinity communities** offer members focused discussions and interaction with other people who share the same affinity. Affinity refers to self- and group identification. For instance, people can self-identify themselves on the basis of religion, ethnicity, gender, sexual orientation, political beliefs, geographical location, and hundreds of other categories. For instance, iVillage, Oxygen, and Condenet are affinity sites designed to attract women. These sites offer women discussion and services that focus on topics such as babies, beauty, books, diet and fitness, entertainment, health, and home and garden. The business model of affinity sites is a mixture of subscription revenue for premium content and services, advertising, tenancy/sponsorship deals, alliances with other sites and businesses, and distribution agreements.

**Sponsored communities** are online communities created by government, non-profit, or for-profit organizations for the purpose of pursuing organizational goals — often commercial goals. These goals can be diverse, from increasing the information available to citizens (for instance, a local county government site such as westchester.gov), to an online auction site such as ebay.com, to a product site such as tide.com, which is sponsored by an offline branded product company (Procter and Gamble). These types of sites are related in that they use community technologies and techniques to pursue their other organizational objectives. The purpose of these sites is not to sell products as much as it is to extend the brand experience and influence, to open a dialogue with customers (deepening customer loyalty), to provide after-market service, and to obtain feedback from customers that might improve product design and distribution. We discuss these benefits below in greater detail. The business model for sponsored communities is to increase brand recognition, customer loyalty, and, ultimately, sales of the product offline.

**Changing Business Models of Online Commercial Communities**

In the E-commerce I era, online for-profit communities were formed by first-mover business firms and entrepreneurs who hoped to attract millions of unique visitors and derive millions of dollars in revenue based on a combination of content, relationship, and transactions (Hagel and Armstrong, 1997). These online communities would be customer-centric, unbiased forums, and highly competitive for firms, creating a new kind of “reverse market” (or so-called *piranha markets* where the little fish would eat the big fish). In this market, customers would seek out producers based on community feedback and comment in chat rooms. Revenue would be generated from advertising, subscription fees, e-commerce transaction fees, and partnerships with other established businesses looking to extend their brands online. Existing firms could use these community sites to extend their brand, understand their customers better through intense interaction, and increase customer loyalty. Firms would have to be swift in developing these communities because first movers would be able to benefit
from network economics, and once large communities were established with a large critical mass of consumers, competitors could not develop competing sites. Existing brands, scale economies, and sheer size would be neutralized by younger, fast-moving entrepreneurial firms that would quickly create dominant online commercial communities.

For the most part, these early concepts of online commercial communities did not come to fruition, and many start-up communities have failed. Most online community sites have experienced great difficulty in generating profits. The costs of content, technology, and customer acquisition/marketing required to achieve a large audience have typically overwhelmed the puny stream of revenues from advertising, tenancy/sponsorship, and subscriptions for premium content. The availability of venture finance and Internet technology resulted in many sites serving the same interest and affinity groups, thus splitting the market into fragments, none of which were profitable. However, recent trends toward consolidation are beginning to reverse this early pattern, and focused vertical market communities of interest and affinity are beginning to attract sufficient market share to become nearly profitable. For instance, iVillage merged with its largest competitor, Women.com, in February 2001. In the third quarter of 2001, iVillage reported its first ever profit, largely as a result of the merger (iVillage.com, 2001).

In E-commerce II, some for-profit online communities are experiencing break-even and even marginally profitable performance by focusing on narrow vertical communities of intensely interested members and keeping marketing costs to a minimum. Dating communities such as Match.com, career-oriented communities such as Monster.com, trading communities such as eBay, and scheduled event communities such as Webex.com that host corporate convention information are either profitable or nearly so.

Briefly, there are some compelling examples of online communities in E-commerce II that show signs of enjoying network effects — becoming the dominant players in small vertical niches. As the Internet audience becomes more sophisticated and targeted in its behavior, engaging in less general surfing and more purposeful use of the Internet, online vertical communities may yet prosper.

**COMMUNITY FEATURES AND TECHNOLOGIES**

Most communities — regardless of type — offer a common set of features to generate and organize the social interaction that takes place on the site. Although the primary focus of communities is on content (articles of interest to visitors), community sites also provide a growing range of other more general services. Table 13.12 describes some of these features.

Most online communities have the technology-based features listed in Table 13.12, but there are also many other important aspects to building effective communities. Effective communities are more than just talk, chat, and messaging. They also
INSIGHT ON TECHNOLOGY

INFOPOP AND THE ULTIMATE BULLETIN BOARD

What do the Financial Times, Weather.com, BET.com, the Online Bible College, and the Chronicle of the Horse have in common? They all offer online communities powered by Infopop, one of the pioneers of bulletin board technology.

Infopop began in 1996 when Ted O’Neill, the founder and CEO, released the first version of his Ultimate Bulletin Board (UBB) software as freeware. UBB allowed Web sites to offer a message board where users could participate in online discussions with one another. It proved so popular that O’Neill formed a company to release a licensed version. Customer feedback was solicited, the product improved, and the second version released in December 1997. In 1998, UBB was upgraded several more times to allow multiple forums and the ability to add e-mail links, image links, hyperlinks, and customized code on most pages. New discussion moderator and administrative features and a search engine were also added. E-mail viewing for registered users, custom title graphics, and an announcement feature for moderators added to the success of the product, which at the beginning of 1999 was being used on over 90,000 Web sites. Today, UBB enables users with small- to medium-sized Web sites to create a hub for online discussions. The downloadable software with a browser-based control panel allows Web sites to sort forum threads on pages separate from other Web-site content. The unique customizable interface allows for a more fluid natural conversation with discussions divided up by forums on unlimited topics. Everyone can participate in the conversations, all members can view all posts, and private messaging is also available.

The profitable company was quickly building a solid customer base including such prominent customers as Prodigy, Oracle, Dell, and Universal Studios, when it unveiled its second product, OpenTopic, in July 2000. OpenTopic is an XML (Extensible Markup Language) message board, which Infopop hosts as an Application Server Provider (ASP). Infopop supplies the entire infrastructure including the servers, hosting, maintenance, backups, statistical analysis tools, and upgrades, enabling the application to scale to handle millions of users and messages. OpenTopic features a browser interface in which site-wide styles can be set and new graphics can be added to replace the defaults. Administrators can remove disruptive members, and contributors can add emoticons (called Instant Smilies), post attachments, and apply styles such as bold or italics to text. Contributors can also rate subject matter and create polls. A single link allows users to access all new posts since their last visit, and all URLs are automatically converted to hyperlinks.

In October 2001, Infopop bought Rick Baker’s SQL (Structured Query Language)-based message board product and renamed it UBBThreads. Infopop hopes this acquisition will
enable it to corner the market for bulletin board products. UBBThreads uses PHP, which is a server-side, cross-platform, HTML-embedded scripting language used primarily on Linux Web servers. PHP (originally “Personal Home Page Tools”) is an alternative to Microsoft’s Active Server Page technology. Both UBBThreads users and administrators will be able to completely personalize the interface. The SQL database will enable customers with Web sites that have more than 20,000 registered users to retain thousands of searchable messages. Users of UBBThreads will be able to switch back and forth between threaded and non-threaded format, pre-screen messages, find out who is presently online, and access a powerful search engine.

The success of Infopop and its products is explained quite simply by its CEO: “Message boards are an essential part of any site that wants to provide a means for visitors to interact.” It has become one of the Web’s success stories, with over 200,000 sites using UBB alone, and a 30% international customer base. Companies have found that building communities can be profitable. Adding a bulletin board can increase the stickiness of a Web site. Companies can use bulletin boards to pass along company news, advertise promotions, or ask survey questions. Some firms are evaluating product ideas by running them by consumers before they invest any research and development dollars. Community bulletin boards can help a company understand its customer base in a way they have never been able to previously. Asking the opinion of customers and gathering customer feedback about products or services can foster brand loyalty. This inexpensive method of spreading ideas and exchanging information can also lead to improved problem solving within a company. Companies can save money on their printing and mailing costs by using the technology to eliminate weekly or monthly newsletters. They can also reduce the costs associated with answering phone calls by enabling managers and franchise owners, as well as customers, to access message boards for the answers to their questions. In fact, a McKinsey study published in 2000 estimated that bulletin boards can cut customer support costs by 25%. Some global companies have found that using bulletin boards to exchange problem-solving ideas among professionals can save considerable amounts of money when problems that have already been addressed in one part of the world are avoided in other localities.


require management, coordination, leadership, expertise, knowledge, and coordination (Figallo, 1998). Managers are needed to guide the development of the site’s technology and content. A staff is required to ensure the continual operation of the community 24x7. Interface designers are required to continually tweak features of the site and improve usability in response to member feedback. Online subject matter experts and chat monitors are also needed to ensure that the content on the site is informative and the chat groups and conferences stay on topic.
Insight on Technology: Infopop and the Ultimate Bulletin Board focuses on one of the key community-building technologies: the bulletin board.

**COMMERCIAL SPONSORED COMMUNITIES: BUSINESS USES OF COMMUNITY**

Communities can be extraordinarily helpful for existing businesses, adding to the value that customers receive from company products and services (see Table 13.13). These sponsored community sites are not necessarily profit centers; in fact, they may be cost centers, but in the long term, they may contribute significantly to sales.

Sponsored commercial communities can play an important role as customer relationship management (CRM) tools. For instance, at Ford.com, customers can look up product features, discover recall announcements, examine warranties, and contact Ford customer service representatives. Management can use this information to spot emerging product issues and correct them.

Commercially sponsored sites can extend an existing brand name using interesting new Web technologies that show their products in a favorable light, and thus increase customer loyalty. For instance, Microsoft sponsors user groups for its software tools. Users create content, communicate with other users, and share knowledge.

Commercially sponsored community sites gather customer feedback and suggestions that can be used to help design new products. When the community consists of other businesses, sponsored communities can also be an important part of a supply chain management system.

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Focus articles on topics of interest.</td>
</tr>
<tr>
<td>E-mail</td>
<td>E-mail addresses and correspondence directed to individuals who self-identify with specific topics.</td>
</tr>
<tr>
<td>Instant messaging</td>
<td>Immediate one-to-one contact with friends through the community facility.</td>
</tr>
<tr>
<td>Message boards</td>
<td>Posting of messages to the entire community and experts online.</td>
</tr>
<tr>
<td>Chat</td>
<td>Online immediate group discussion; Internet relay chat (IRC).</td>
</tr>
<tr>
<td>Discussion groups</td>
<td>Discussion groups organized by topic.</td>
</tr>
<tr>
<td>Experts online</td>
<td>Certified experts in selected areas respond to queries.</td>
</tr>
<tr>
<td>Web page creation</td>
<td>Personal and group Web pages.</td>
</tr>
</tbody>
</table>
TABLE 13.13 ECONOMIC BENEFITS OF COMMERCIAL SPONSORED COMMUNITIES

<table>
<thead>
<tr>
<th>BENEFIT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer relationship management</td>
<td>Using the community to track customer contacts with the firm</td>
</tr>
<tr>
<td>Brand extension</td>
<td>Developing an online presence for an offline brand.</td>
</tr>
<tr>
<td>Customer loyalty</td>
<td>Bringing intangible benefits to the customer through the community site.</td>
</tr>
<tr>
<td>Product innovation</td>
<td>Using feedback from the community to create new products.</td>
</tr>
<tr>
<td>Market research</td>
<td>Receiving feedback from customers; focused mailing lists.</td>
</tr>
<tr>
<td>Product information</td>
<td>Warranty, performance, limitation, and best practice use of products.</td>
</tr>
<tr>
<td>Supply chain management</td>
<td>Developing a community of suppliers to more closely coordinate their activities, and inform them of firm future plans and requirements.</td>
</tr>
</tbody>
</table>

E-COMMERCE IN ACTION: ALLOY INC.

Alloy Inc. (formerly Alloy Online Inc.) is a New York City-based company founded in 1996 that runs two leading Web sites, alloy.com and ccs.com, targeting Generation Y boys and girls — the more than 58 million young adults aged 10 to 24 who have over $250 billion in disposable income. You can find an E-commerce in Action case examining Alloy in depth at www.LearnE-commerce.net.
In March 1999, despite racking up $65 million in losses through its first three years of operation, going through five CFOs in its first two years of business, and dealing with lawsuits filed by former executives, including accusations of prematurely recognizing revenues, iVillage went public at $24 per share, closing at $80 on the first day of trading. iVillage, a network of sites aimed at women, at the time faced stiff competition from the merger of the second and third largest women’s sites, Women.com and the Hearst Corp.’s HomeArts.com two months previously. The merger produced a network with traffic that surpassed that of iVillage. Making the IPO seem even more tenuous was the recent launching of Oxygen Media, a hybrid cable TV and Web network that would be a direct competitor. Even more daunting, Oxygen founder Geraldine Laybourne was a close friend of AOL president Bob Pittman, and AOL had sold her three Web sites with women’s content, Thrive, Mom’s Online, and Electra, in exchange for an equity stake in Oxygen. AOL’s active support for Oxygen had to give iVillage’s executives and the IPO underwriters at Goldman Sachs pause as iVillage’s prospectus explicitly made clear their own “dependence on AOL.” AOL carried their channels and funneled traffic to the site. If AOL were to drop iVillage, they knew that their “results of operation and financial condition would be materially adversely affected.” Even if AOL were to support both sites, the competitive advantage of being the women’s site that supplied content to the largest ISP would be severely eroded.

In spite of the stunning losses, a high employee turnover rate, looming competition, dwindling competitive advantage, and legal challenges from ex-employees, the deal was very highly anticipated and, in fact, became one of the most impressive IPOs in financial history. In April 1999, the stock reached a high of $130 a share. Why were Wall Street and investors so enamored of iVillage?

First, the Goldman Sachs name imparted an aura of respectability to the offering, implying (even if incorrectly) that a sound business plan and a solid management team were behind the deal. Second, women make over 70% of all consumer purchases. Investors assumed that as the number of Web devotees increased, so would business-to-consumer purchases on the Web. The potential market therefore was massive, and because the company was targeting a desirable demographic group, the amount iVillage could charge advertisers for banner ads and sponsorships was substantial. Third, co-founder Nancy Evans, a former president of Doubleday and creator of Family Life magazine, was credited with building a network of 12 sites dedicated to...
parenting, family, career, health, food, relationships, finance, and other special interest topics that was compelling in both content and format. The focus was on community and interaction, with guest experts and volunteer moderators leading discussions on various topics. Fourth, Internet stocks at the time were being valued in part on two metrics, “eyeballs” and “stickiness.” iVillage had a growing audience, as measured by its rapidly increasing number of registered members, and these members returned on average 2.4 times per month. Finally, and by many accounts, the most important reason was the participation of the other co-founder, Candice Carpenter, who as CEO of the company had built some strong strategic partnerships for the company, including the distribution deal with AOL.

The controversial Carpenter was much in the news at the time. Venture capitalists, such as the firm Kleiner Perkins, which had invested in iVillage, strongly supported her. The Web community was impressed with her, and after the IPO, which set the bar for measuring the first day success of a company, she was widely referred to as one of the “dot.com divas.” Credited with having the insight to recognize the potential for community on the Internet before the word was as overused and hackneyed as it is today, Carpenter says that, as a consultant for AOL, she noticed the underlying communities and believed that these “things about people’s lives that were just vibrant” were what the Internet would become. In her tenure as CEO, she broke the bank to build the iVillage brand name, established a partnership with NBC, and lined up costly distribution deals with Yahoo, Lycos, and other major portals in addition to AOL. The NBC deal was in response to the pressure from Oxygen Media, which could promote its Web site through its own cable TV network, perhaps giving it a marketing advantage. NBC received an equity stake in iVillage in return for running commercials and promoting iVillage on the NBC Web site, Snap.com.

Carpenter is also credited with burning through cash at an unprecedented rate, and blamed for the high turnover rate at the company. She has been called everything from a tyrant to “Queen of the Internet.” In an affidavit in support of the lawsuit filed just before the IPO, former CFO Joanne Hindman said that the motivation for recognizing revenues prematurely was Carpenter’s “single-minded desire to establish seemingly positive financial results” in order to create the impetus for an IPO. The fact is in those times, with venture capitalists ready to benefit from their investments, investment banks ready to accommodate them, and investors eager for anything dot.com, it was in the interest of all involved to try to quickly take advantage of a turbulent market that in more conservative times would have found the IPO preposterous. Even though “fudging” on the books is never acceptable and Carpenter seems to have been an overly ambitious, highly driven individual, lacking in people skills, she was clearly responding to what the times called for. Her goals were to get her company front and center in the public eye, get it off the ground, and then begin the hard work of building it into a profitable firm. Traditionally, venture capitalist-backed businesses would go public only after establishing themselves as realistic businesses. Dur-
ing the Internet boom, companies went public in order to become businesses. Carpenter simply understood the dynamics of the times and, as she says now, investors in iVillage were duly warned that it would take the company seven to ten years to become profitable.

However, as stock prices dipped, the problems with the company's culture became apparent. Carpenter and Evans attempted to repair the damage, but it soon became clear that they could not reverse the fact that the average employee at iVillage stayed only seven months. In the summer of 2000, with the stock at a new low of $6.25, Carpenter resigned as CEO, taking over the helm as chairman of the board, but not before she had lined up a lucrative advertising deal with Unilever and arranged for a two-year strategic partnership with e-centives Inc. to provide online incentives and coupons to iVillage members. Carpenter's resignation was widely seen by analysts as a good move for the company, enabling Carpenter to concentrate on what she was best at, the role of visionary and long-term strategic planner.

The new CEO, Douglas McCormick, former CEO of the Lifetime cable TV network, had joined the company in April 2000 as second in command. McCormick's tenure began in a period of sharply declining advertising revenues as nascent Internet companies, in the same boat as iVillage, reduced their advertising outlays. The
business-to-consumer model had fallen out of favor with investors, and was replaced by the B2B sector, which looked as if it would provide a quicker path to profitability. Soon the dot.com shakeout resulted in an overall sharp decline in advertising revenue. The advertising business model was being severely tested. Although iVillage had never completely depended on advertising revenue, a short foray into the e-commerce realm with the acquisition in 1999 of iBaby, a baby products store, was abandoned a year later. In July 2000, it also closed its two other e-commerce sites, iMaternity and Plus Boutique, a move widely seen by analysts as prudent. iVillage was more dependent on advertising than ever.

By the spring of 2001, iVillage had received a NASDAQ warning that its stock had failed to maintain a minimum bid price of at least $1 for 30 consecutive trading days. NASDAQ gives a company 90 days to regain compliance or it will be delisted. The stock must reach a minimum of $1 and maintain it for 10 consecutive trading days in order to stay listed. The impending acquisition of Women.com in a stock swap deal perhaps helped to boost the stock price up over the $1 mark, reaching $1.66 by the end of May.

The consolidation of the two competing sites included a $20 million investment from the Hearst Corp. and an agreement by Hearst to buy between $15 and $20 million in advertising and production services over the next three years. Hearst publications including Redbook, Cosmopolitan, and Country Living will have Web sites on the iVillage network. Analysts said that only ten of iVillage's advertisers also advertised on Women.com, and that there was only a limited overlap of users between the two sites, estimating that iVillage could increase its membership by 84% to 109% in addition to greatly strengthening its competitive position. Jupiter Media Metrix predicted that the combined company would rank in the top 20 most visited sites.

iVillage escaped delisting, completed the merger in June 2001, and promptly announced a round of heavy layoffs to cut costs. In July, it acquired control of Public Affairs Group Inc., owner of the Business Women's Network. The acquisition of BWN was part of Doug McCormick's strategy to increase subscription-based business, and it added a B2B component to the company. BWN connects over 5,000 women's business and professional organizations and has clients in over 250 of the Fortune 500 companies. Although McCormick still believes that the advertising model is workable, he wanted to add the subscription model "on top of it."

Analysts are split on whether McCormick is right about the viability of the advertising model. Some have pointed out that the Web's strength, the ability to quickly measure the effectiveness of an advertising campaign, is also its weakness. Although advertising in other media generally takes time to evaluate and the effectiveness of any given campaign takes time to unfold, on the Web the effectiveness of a pop-up or banner ad can be measured almost instantaneously. This results in a much higher standard for judging the successful use of advertising dollars. Others have pointed out the relative youth of the industry and predict that as bandwidth increases and more
streaming video ads are added, the click-through rate will increase. In fact, iVillage has already begun what it calls NTVQ (Near Television Quality) streaming video ads from Procter & Gamble for Pampers, Swiffer, and Tide.

Other analysts say that in order for the advertising model to succeed, sites must specifically target an audience rather than trying to appeal to everyone as iVillage does. Marissa Gluck of Jupiter Media Metrix believes that because iVillage “lumps women into one singular category” it does not provide advertisers with enough opportunities to target women with their ads. Everyone agrees that in order for iVillage to survive it must woo the major consumer packaged goods companies who have so far resisted Web advertising. Again, McCormack appears to be making the right moves. During the third quarter of 2001, iVillage signed 23 new advertisers including P&G, Revlon, and Clairol.

In fact, for the third quarter of 2001, iVillage announced a company milestone, positive pre-tax operating earnings, also called EBITDA or Earnings before Interest, Taxes, Depreciation, and Amortization. Improving operating income is generally believed to be a sign that a company is turning the tide, with an enhanced outlook for posting real earnings someday.

While the future of iVillage is still uncertain, with its stock still trading at around $1.30 a share at the end of October 2001 (up 17% from the previous year), and revenues still falling as a result of the deteriorating advertising climate, iVillage now derives about 25% of its revenues from sources other than advertising. It has a market value of $41 million against liquid assets of $54 million, and is ranked 25th on Jupiter Media Metrix's top 50 Web and Digital Media properties survey for September 2001 (not quite meeting the predictions). These numbers are leading some analysts to conclude that iVillage might be a “value play” for 2002.

Case Study Questions

1. Is iVillage a general purpose portal for all women, or a vertical portal? Visit the iVillage site and make a list of both its general and vertical features to support your argument. How do you think visitors to the site will appreciate more general features?

2. How can iVillage become less dependent on advertising revenues? What recommendations do you have for iVillage management for new kinds of services and content that would generate revenue?

3. What were the factors that led the public markets to price iVillage’s stock at $1.30 per share shortly after it was issued? Do you think these valuations were reasonable at the time? Why or why not?
4. What are the tensions that exist in community sites such as iVillage between commerce and community? Visit the iVillage site and spend some time exploring its content sections, message boards, and chat sessions before answering this question.

13.5 REVIEW

KEY CONCEPTS

Describe the major types of auctions, their benefits and costs, and how they operate.

Auctions are markets where prices vary (dynamic pricing) depending on the competition among the participants who are buying or selling products or services. They can be classified broadly as C2C or B2C. A C2C auction is one in which the auction house acts as a forum where consumers can sell to and buy from one another. A B2C auction refers to an established online merchant which offers its own auctions. There are also B2B auctions for sellers and buyers of industrial parts, raw materials, commodities, and services. Within these three broad categories of auctions are several major auction types classified based upon how the bidding mechanisms work in each system.

- **English Auctions**: A single item is up for sale from a single seller. Multiple buyers bid against one another within a specific time frame with the highest bidder winning the object, as long as the high bid has exceeded the reserve bid set by the seller, below which he or she refuses to sell.

- **Dutch-Internet Auctions**: Sellers with many identical items to sell list a minimum price or starting bid, and buyers indicate both a bid price and a quantity desired. The lowest winning bid that clears the available quantity is paid by all winning bidders. Those with the highest bid are assured of receiving the quantity they desire, but only pay the amount of the lowest successful bid (uniform pricing rule).

- **Name Your Own Price Auctions**: Buyers specify the price they are willing to pay for an item and multiple sellers bid for their business. This is one example of discriminatory pricing in which winners may pay different amounts for the same product or service depending on how much they have bid.

- **Group Buying or Demand Aggregation Auctions**: In the group-buying format, the more users who sign on to buy an item, the lower the price for the item falls. These are generally B2B or B2G sites where small businesses can collectively receive discount prices for items that are purchased in high volumes.

Benefits of auctions include:

- **Liquidity**: Sellers and buyers are connected in a global marketplace.

- **Price discovery**: Even difficult to price items can be competitively priced based on supply and demand.
• **Price transparency:** Everyone in the world can see the asking and bidding prices for items, although prices can vary from auction site to auction site.

• **Market efficiency:** Consumers are offered access to a selection of goods that would be impossible to access physically, and consumer welfare is often increased due to reduced prices.

• **Lower transaction costs:** Merchants and consumers alike are benefited by the reduced costs of selling and purchasing goods compared to the physical marketplace.

• **Consumer aggregation:** A large number of consumers who are motivated to buy are amassed in one marketplace—a great convenience to the seller.

• **Network effects:** The larger an auction site becomes in the numbers of both users and products, the greater all of the above benefits become and therefore the more valuable a marketplace it becomes.

• **Market maker benefits:** Auction sites have no inventory carrying costs or shipping costs, making them perhaps the ideal online business in that their main function is the transfer of information.

Costs of auctions include:

• **Delayed consumption:** Auctions can go on for days and the product must then be shipped to the buyer. Buyers will typically want to pay less for an item they cannot immediately obtain.

• **Monitoring costs:** Buyers must spend time monitoring the bidding.

• **Equipment costs:** Buyers must purchase, or have already purchased, computer systems and Internet service, and learned how to operate these systems.

• **Trust risks:** Consumers face an increased risk of experiencing a loss as online auctions are the largest source of Internet fraud.

• **Fulfillment costs:** Buyers must pay for packing, shipping, and insurance and will factor this cost into their bid price.

Auction sites have sought to reduce these risks through various methods including:

• **Rating systems:** Previous customers rate sellers based on their experience with them and post them on the site for other buyers to see.

• **Watch lists:** These allow buyers to monitor specific auctions as they proceed over a number of days and only pay close attention in the last few minutes of bidding.

• **Proxy bidding:** Buyers can enter a maximum price they are willing to pay and the auction software will automatically place incremental bids as their original bid is surpassed.

**Understand when to use auctions in a business.**

Auctions can be an appropriate channel for businesses to sell items in a variety of situations. The factors for businesses to consider include:

• **The type of product:** Rare and unique products are well suited to the auction marketplace as are perishable items such as airline tickets, hotel rooms, car rentals and tickets to plays, concerts, and sporting events.
• **The product life cycle:** Traditionally, auctions have been used by businesses to generate a higher profit on items at the end of their life cycle than they would receive from product liquidation sales. However, they are now more frequently being used at the beginning of a product's life cycle to generate premium prices from highly motivated early adopters.

• **Channel management:** Businesses must be careful when deciding whether to pursue an auction strategy to ensure that products at auction do not compete with products in their existing profitable channels.

• **The type of auction:** Businesses should choose seller-biased auctions where there are many buyers and only one or a few sellers, preferably using the English ascending price system to drive the price up as high as possible.

• **Initial pricing:** Auction items should start with a low initial bid in order to attract more bidders, because the more bidders an item has, the higher the final price will be driven.

• **Bid increments:** When increments are kept low, more bidders are attracted and the frequency of their bidding is increased. This can translate into a higher final price as bidders are prodded onward in small steps.

• **Auction length:** In general, the longer an auction runs, the more bidders will enter the auction, and the higher the final price will be. However, if an auction continues for too long, the bid prices will stabilize and the cost of posting the auction may outweigh the profit from any further price increases.

• **Number of items:** If a business has a large quantity of items to sell, they should break the lot up into smaller bundles and auction them at different times so that buyers do not expect a volume discount.

• **Price allocation rule:** Since most buyers are biased toward the uniform pricing rule, sellers should use different auction markets, or auction the same goods at different times in order to price discriminate.

• **Closed vs. open bidding:** Closed bidding should be used where possible because it benefits a seller by allowing price discrimination. However, open bidding can sometimes be beneficial when herd behavior kicks in, causing multiple bids on highly visited auctions. This generally occurs when there are few objective measures of a product's true value in the marketplace.

Ⅲ **Recognize the potential for auction abuse and fraud.**

Auctions are particularly prone to fraud, which produces information asymmetries between buyers and sellers. Some of the possible abuses and frauds include:

• **Bid rigging:** Agreeing offline to limit bids or using shills to submit false bids that drive prices up.

• **Price matching:** Agreeing informally or formally to set floor prices on auction items below which sellers will not sell in open markets.

• **Shill feedback, defensive:** Using secondary IDs or other auction members to inflate seller ratings.

• **Shill feedback, offensive:** Using secondary IDs or other auction members to deflate seller ratings for another user (feedback bombs).
• Feedback extortion: Threatening negative feedback in return for a benefit.
• Transaction interference: E-mailing buyers to warn them away from a seller.
• Bid manipulation: Using the retraction option to make high bids, discovering the maximum bid of current high bidder, and then retracting the bid.
• Non-payment after winning
• Blocking legitimate buyers by bidding high, then not paying
• Shill bidding: Using secondary user IDs or other auction members to artificially raise the price of an item.
• Transaction non-performance: Accepting payment and failing to deliver.
• Non-selling seller: Refusing payment or failing to deliver after a successful auction.
• Bid siphoning: E-mailing another seller’s bidders and offering the same product for less.

Describe the major types of Internet portals.

Web portals are gateways to the more than four billion Web pages available on the Internet. Originally their primary purpose was to help users find information on the Web, but they have evolved into destination sites that provide a myriad of content from news to entertainment. Today portals serve three main purposes: navigation of the Web, content, and commerce. Among the major portal types are:

• Enterprise portals: Organizations create these sites to help employees or members navigate to important content such as corporate news or organizational announcements.
• General purpose portals: Examples are AOL, Yahoo, and MSN, which try to attract a very large general audience by providing many in-depth vertical content channels. They also offer ISP services on a subscription basis, search engines, e-mail, chat, bulletin boards, and personal home pages.
• Vertical market portals: Also called destination sites, they attempt to attract a highly focused, loyal audience with an intense interest in either a community they belong to or an interest they hold. Vertical market portals can be divided into two main classifications, affinity group portals (which serve statistical aggregates of people who identify themselves by their attitudes, values, beliefs, and behavior) and vertical content portals (which contain in-depth information on a particular topic that all members are interested in).

Understand the business models of portals.

Portals receive revenue from a number of different sources. The business model is presently changing and adapting to declines in certain revenue streams, particularly advertising revenues. Revenue sources can include:

• ISP services: Providing Web access and e-mail services for a monthly fee.
• General advertising: Charging for impressions delivered.
• Portal tenancy deals: Locking in long-term, multiple-year deals so a company is guaranteed a number of impressions with premium placement on home pages and through exclusive marketing deals.
• **Subscription fees:** Charging for premium content.
• **Commissions on sales:** Earning revenue based on sales at the site by independent merchants.

The survival strategy for general purpose portals in E-commerce II is to develop deep, rich, vertical content in order to attract advertisers to various niche groups that they can target with focused ads. The strategy for the small vertical market portals is to build a collection of vertical portals, thereby creating a network of deep, rich content sites for the same reason.

- Explain the difference between a virtual community and a traditional community, and how an online community differs from a portal.

Communities involve:
• A group of people
• Shared social interaction
• Common ties among members
• A shared area for some period of time

By extension, a virtual community is an area online where people who share common ties can interact with one another.

The difference between portals and communities has become blurred. Originally portals began as search engines. Then they added content and eventually many community building features such as chat rooms, bulletin boards, and free Web site design and hosting. Community sites began as content-specific locations and added more general portal services such as Web searching, general news, weather, and travel information, as well as a wide variety of e-commerce services.

- Describe the different types of online communities and their business models.

  • **General communities:** Members can interact with a general audience segmented into numerous different groups. The purpose is to attract enough members to populate a wide range of topical discussion groups. Most general communities began as non-commercial subscription-based endeavors, but many have been purchased by larger portal sites.
  
  • **Practice communities:** Members can participate in discussion groups and get help or simply information relating to an area of shared practice, such as art, education, or medicine. These generally have a non-profit business model in which they simply attempt to collect enough in subscription fees, sales commissions, and limited advertising to cover the cost of operations.
  
  • **Interest communities:** Members can participate in focused discussion groups on a shared interest such as boats, horses, skiing, travel, or health. The advertising business model has worked because the targeted audience is attractive to marketers. Tenancy and sponsorship deals provide another similar revenue stream.
  
  • **Affinity communities:** Members can participate in focused discussions with others who share the same affinity or group identification, such as religion, ethnicity, gender, sexual orientation, or political beliefs. The business model is a
mixture of subscription revenue from premium content and services, advertising, tenancy/sponsorships, and distribution agreements.

- **Sponsored communities:** Members can participate in online communities created by government, non-profit, or for-profit organizations for the purpose of pursuing organizational goals. For-profit sites use community technologies and techniques to distribute information or extend brand influence. The goal of a branded product site is to increase offline product sales. These sites do not seek to make a profit and in fact are often cost centers.

**Understand the business value of communities.**

Communities can be beneficial to existing businesses in many ways. Companies can use community-building technologies as important customer relationship management tools by:

- Relating company news, recall announcements, or warranty information
- Advertising promotions or product features
- Asking survey questions
- Asking customers to evaluate product ideas
- Gathering customer feedback

Feedback can be used to help spot emerging product issues and correct any problems. Community-building features on a site can also foster new product development and both brand and customer loyalty.

**Questions**

1. What is personalization or personal value pricing and how can it be used at the beginning of a product’s life cycle to increase revenues?
2. List and briefly explain three of the benefits of auction markets.
3. What are the four major costs to consumers of participating in an auction?
4. Under what conditions does a seller bias exist in an auction market? When does a buyer bias exist?
5. What are the two price allocation rules in auction markets? Explain the difference between them.
6. What is an auction aggregator and how does it work?
7. What types of products are well suited for an auction market? At what points in the product life cycle can auction markets prove beneficial for marketers?
8. What three characteristics define a portal site today?
9. What is a vertical market portal and how might recent trends in consumer behavior prove advantageous to this business model?
10. What are the two main types of vertical market portals, and how are they distinguished from one another?
11. List and briefly explain the main revenue sources for the portal business model.
12. What is an affinity community, and what is its business model?
13. Why did most communities in E-commerce I fail? What factors may enable some online vertical communities to prosper in E-commerce II?
14. How can sponsored commercial communities play an important role as customer relationship management tools?

**PROJECTS**

1. Find two examples of an affinity portal and two examples of a focused content portal. Prepare a presentation explaining why each of your examples should be categorized as an affinity portal or a focused content portal. For each example, surf the site and describe the services each site provides. Try to determine what revenue model each of your examples is using and if possible how many members or registered visitors the site has attracted.

2. Examine the use of auctions by businesses. Go to any auction site of your choosing (for example Lycos Auctions <http://auctions.lycos.com>) and look for outlet auctions or auctions of items directly from merchants. Research at least three products up for sale. What stage in the product life cycle do these products fall into? Are there quantity purchasing requirements? What was the opening bid price? What are the bid increments? What is the auction duration? Analyze why these firms have used the auction channel to sell these goods and prepare a short report on your findings.

3. Visit one for-profit and one non-profit sponsored community site. Create a PowerPoint or other form of presentation to describe and demonstrate the offerings at each site. What organizational objectives is each pursuing? How is the for-profit company using community building technologies as a customer relations management tool?
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<thead>
<tr>
<th>WEB SITE RESOURCES</th>
<th><a href="http://www.LearnE-commerce.net">www.LearnE-commerce.net</a></th>
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<tr>
<td>News: Weekly updates on topics relevant to the material in this chapter</td>
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<td>Video Lecture: Professor Ken Laudon summarizes the key concepts of the chapter</td>
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<tr>
<td>Research: Abstracts and links to articles referenced in the chapter as well as other relevant research</td>
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<tr>
<td>International Spotlight: More information about auctions, portals, and communities outside of the United States</td>
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<td>PowerPoint Slides: Illustrations from the chapter and more</td>
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