# CHAPTER FOUR

Marketing on the Web

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# Introduction

- When household products were purchased primarily by women, ads depicting the father as inept might have made sense

- Men now take a larger role in these decisions and companies have turned away from adverting that makes a joke of men's experiences

- In 2012 Kimberly-Clark faced a firestorm of criticism for portraying men as incompetent caregivers
  - Company now regularly engages with "dad-focused" social media outlets and participates in the annual Dad 2.0 Summit, a conference focusing on advising companies on how to appeal to fathers

# In This Chapter

You will learn:

- ❑ How companies use <span style="color:red">advertising and marketing</span> to develop long-term relationships with customers that might never meet in person

- ❑ It is <span style="color:red">important</span> to tell an authentic, accurate, meaningful, and consistent <span style="color:red">story</span> through both online and physical channels

- ❑ This <span style="color:red">underlines the principles</span> of <span style="color:blue">branding, marketing, relationship management, and communication</span> that you will learn about in this chapter

# The Four Ps of Marketing (1/2)

Essential issues of marketing are organized into four Ps of marketing:

- **Product** is the physical item or service that a company is selling
  - Brand is the customers' perception of the product
  - Brand can be as important as the actual characteristics of the product
- **Price** is amount customer pays for the product

# The Four Ps of Marketing (2/2)

- **Promotion** includes any means to spread the word about the product
- **Place** (distribution) is the need to have products or services available in many different locations
  - The problem of getting right products to the right places at the best time to sell them
  - The internet can help
    - Digital products can be delivered almost instantly
    - Internet provides much better shipment tracking and inventory control tools

# Product-Based Marketing Strategies

- Managers often think of their business in terms of products and services sold
  - Works well when customers want to buy items from particular product categories, or think of needs in terms of product categories
    - Web site examples: Office Depot, Staples, Sears
- Not an efficient Web site design when customers look to fulfill a specific need instead of a specific product
  - E.g., redecorating a room or choosing a graduation gift
  - Design Web site to meet individual customer needs
  - Need to offer alternative shopping paths to meet the above requiement

# Customer-Based Marketing Strategies

- Web sites designed to meet various types of customers' specific needs
  - **Initial step** is to identify customer groups sharing common characteristics (such group is called demographic)
  - Make site more accessible and useful for each group
- Companies need to take view beyond internal perspective
  - Early university Web sites were designed around the internal elements such as departments, colleges, and programs
  - Current university Web sites focus design on needs of stakeholders (current students, prospective students, parents of students, potential donors, faculty)

# Communicating with Different Market Segments

- **An equally important component** of any market strategy is the selection of communication media to carry the marketing message
- Media selection or choosing where to market and advertise a company can be critical for an on-line only firm
  - No physical presence
  - Only contact a customer might have with an online firm is the image projected through media and Web site
- Online firm challenge is to obtain customer trust with no physical presence

# Trust, Complexity, and Media Choice

- The Web is a very broad, intermediate step between mass media and personal contact

- Web communication offers elements of mass media messaging, personal contact interaction, and anything in between
  - Mass media advertising offers lowest trust level but its low cost per viewer makes it attractive to many companies

- Product complexity is a factor in media choice

- Many companies use blogs to communicate
  - Blogs and social media allow companies to engage in two-way communications that more like the high-trust personal contact communication mode without incurring high cost
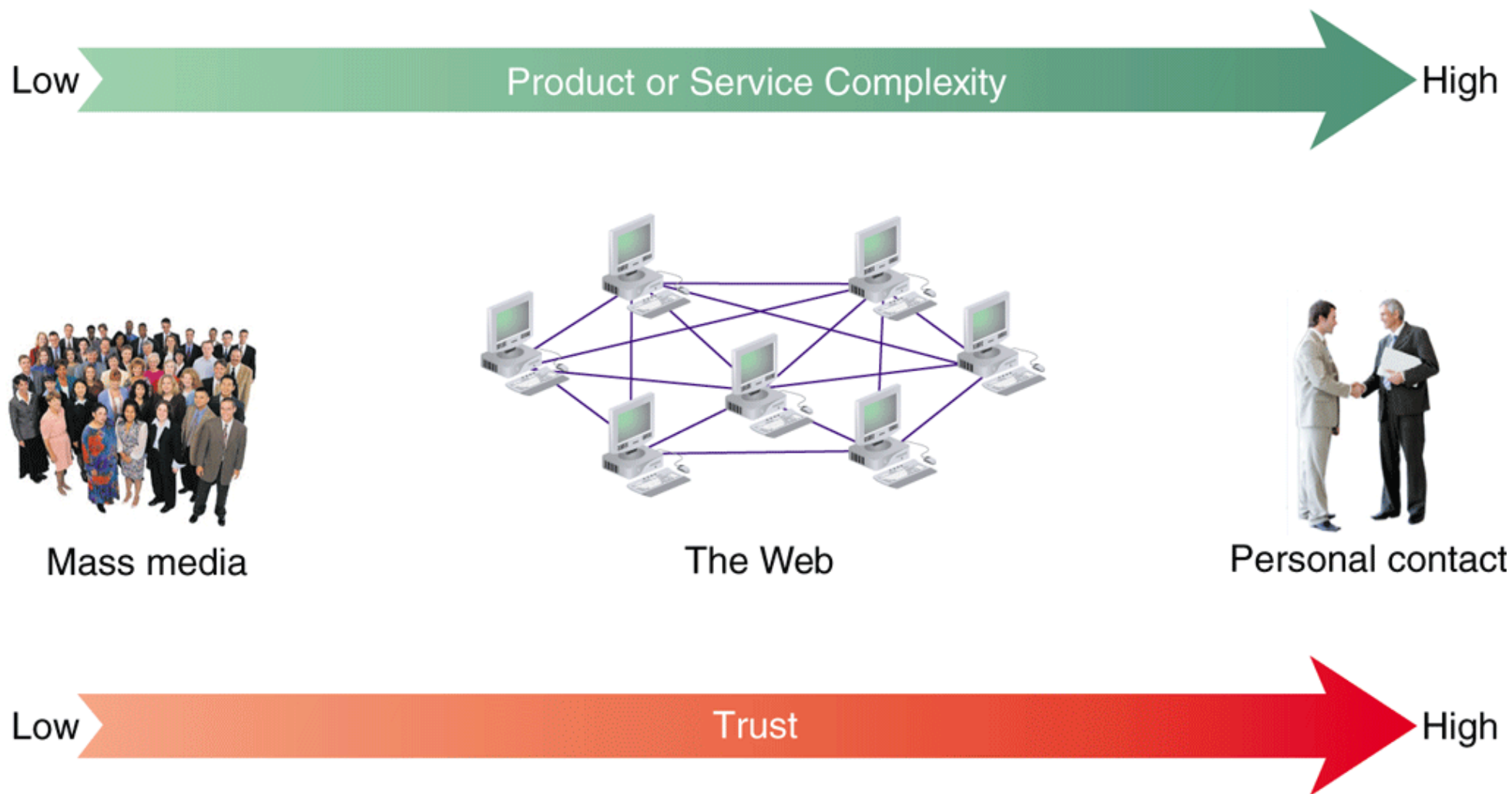
FIGURE 4-2 Trust in three communication modes

# Market Segmentation

- **Market segmentation:** divides potential customer pool into segments defined by customer characteristics
  - A way to deal with the decrease in advertisement effectiveness
- Micromarketing is the practice of targeting very small market segments
  - Hampered by much higher "low cost per viewer"
- Three categories to identify market segments
  - Geographic segmentation (e.g., location)
  - Demographic segmentation (e.g., age, gender, family size, income)
  - Psychographic segmentation (e.g., social class, personality)
- Television advertisers use all three categories

| Type of Television Program | Type of Advertising |
|---|---|
| Children's cartoons | Children's toys and games |
| Daytime dramas | Household and laundry goods, pet foods |
| Late-night talk shows | Snack foods and nonprescription sleep aids |
| Golf tournaments | Golf equipment, investment services, and life insurance |
| Baseball and football games | Snack foods, beer, autos |
| Documentary films | Books, CDs, educational DVDs |

FIGURE 4-3 Television advertising messages tailored to program audience

# Market Segmentation on the Web

- Web presents an opportunity for different store environments online
  - Juicy Couture site targets young, fashion-conscious buyers
    - A wide variety of typefaces, bold graphics, brightly colored products
  - Talbots site targets older, more established buyers
    - More subtle, conservative style
- Retail stores have limited floor and display space
  - Must convey one particular message
- Web stores can provide separate virtual spaces for different market segments
  - One-to-one marketing offers products and services matched to needs of a particular customer

# Beyond Market Segmentation

We have learned:

- How companies can target as market segments groups of customers that share common characteristics

The next step:

- Beyond market segmentation
- Even beyond one-to-one marketing
- Is when companies use the Web to target specific customers in different ways at different times

# Segmentation Using Customer Behavior

- Same person requires different combinations of products and services depending on the occasion

- **Behavioral segmentation** is the creation of separate experiences for customers based on behavior

- Much easier in the online world to design a single Web site that meets the needs of visitors in different behavioral modes

  - Customizing visitor experiences to match site usage behavior patterns of each visitor type is **usage-based market segmentation**

  - One popular set of categories include **browsers, buyer, and shoppers**

# Browsers

- Some visitors just surf or browse sites
- Web site must offer something to stimulate visitors' interest
  - Trigger words, links to explanations or instructions, extra content related to products and services
  - Visitors who develop a favorable impression are more likely to buy or bookmark site for a return visit

# Buyers

- Ready to make a purchase right away
- Site should offer a direct route into purchase transaction
  - Shopping cart is the part of the Web site that keeps track of items selected for purchase and automates purchasing process
- Primary goal is to get buyer to shopping cart as quickly as possible

# Shoppers

- **Motivated** to **buy** but **looking for** more information before purchase (the customer knows the site offers items they are **interested in buying**)

- **Site should offer** comparison tools, product reviews, and features lists

- Person may visit a Web site one day as a browser and **return later as** a shopper or buyer

  - People **do not retain behavioral categories** from one visit to the next even for the same Web site

| Category | Online Objective | Web Site Characteristics That Attract These Visitors |
|---|---|---|
| Simplifiers | Convenience | Tools or facilities that make doing business easier, faster, or more efficient |
| Surfers | Find information, new ideas | Content that is entertaining, attractive, well displayed, and constantly updated |
| Bargainers | Find a good deal | Auctions, discounts, coupons, and sales |
| Connectors | Stay in touch with others | Chat rooms, discussion boards, social networking features, online greeting cards, e-mail services |
| Routiners | Information in one place | News, financial information, a familiar and stable user interface |
| Sportsters | Information in one place | Sports, entertainment, a familiar and stable user interface |

Source: Forsyth, J., T. McGuire, J. Lavoie. 2000. *All Visitors Are Not Created Equal*. Boston: McKinsey & Co. and MediaMetrix.

FIGURE 4-4 Web site visitor categories based on a behavioral segmentation study

# Customer Relationship Intensity and Life-Cycle Segmentation

- One-to-one marketing and usage-based segmentation strengthen companies' relationships with customers

- Good customer experiences create feelings of intense loyalty

- Typical **five-stage model** of customer loyalty

  - Awareness, Exploration, Familiarity,  Commitment, Separation

  - First four stages show increase in relationship intensity

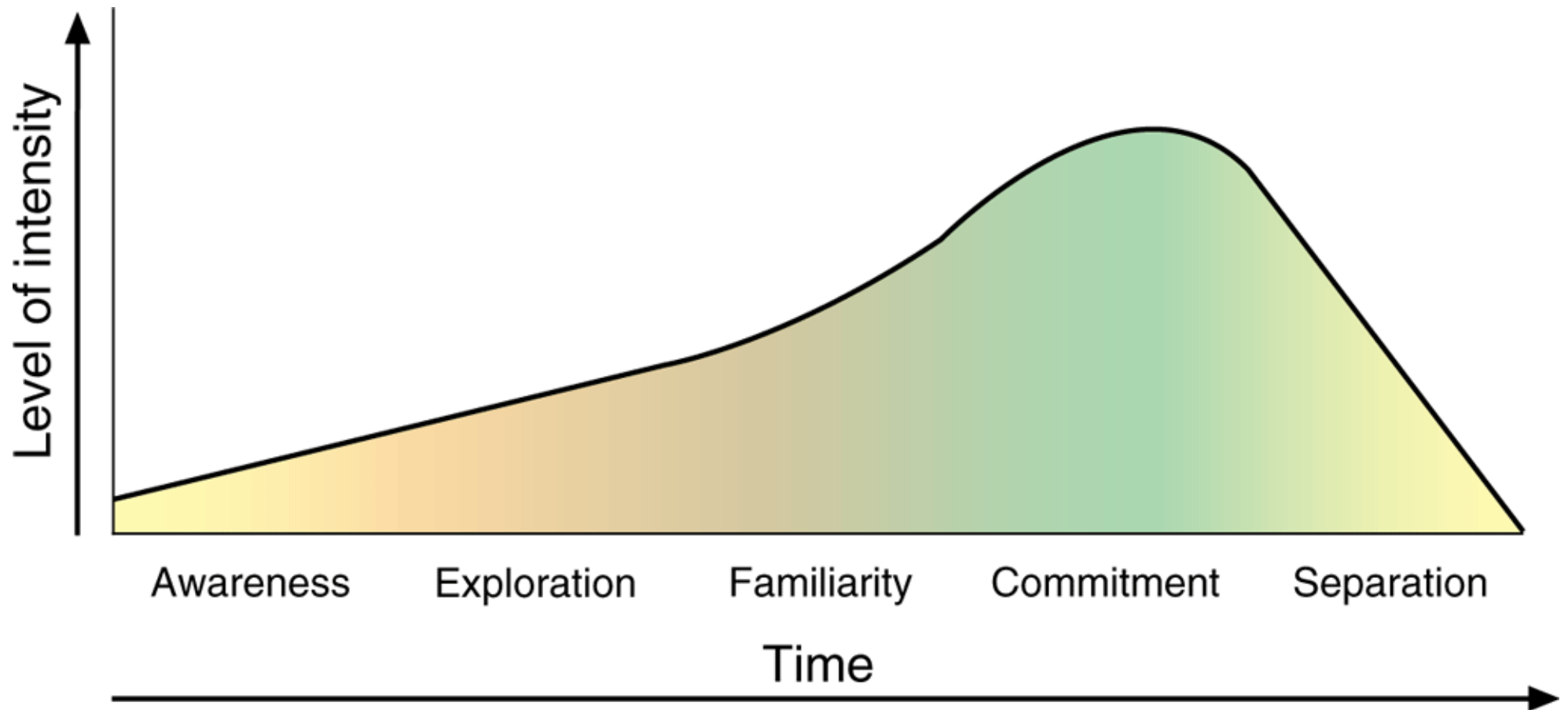  - In the fifth stage, decline occurs and the relationship terminates

FIGURE 4-5 Five stages of customer loyalty

# Customer Relationship Intensity and Life-Cycle Segmentation (cont'd.)

- **Characteristics** of the five stages

  - Awareness: customers recognize company name or one of its product (in the awareness stage)

  - Exploration: customers learn more about company, products (extensive information interchange)

  - Familiarity:
    - Customers have completed several transactions
    - Customers aware of returns and credits policies
    - Customers aware of pricing flexibility
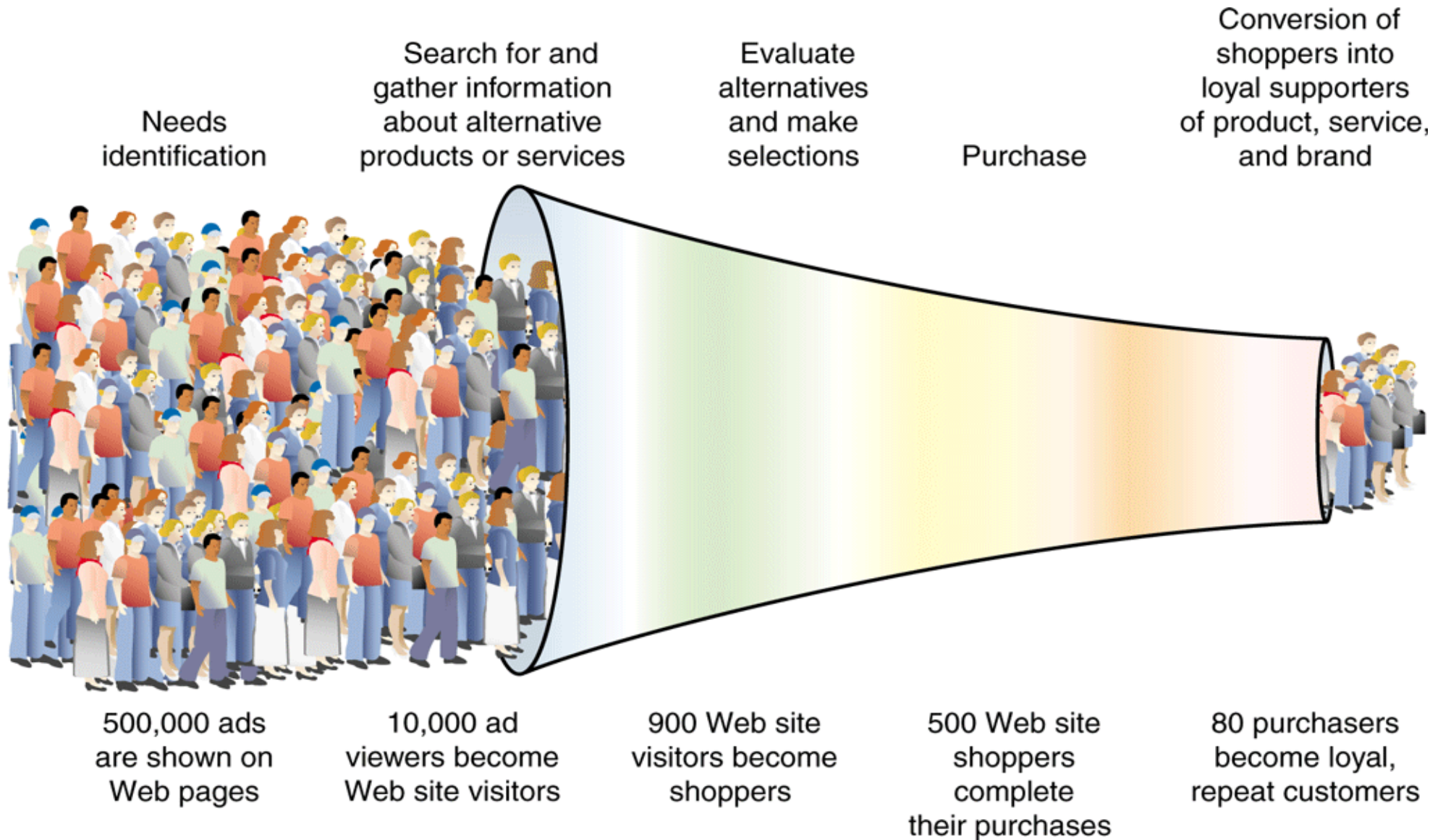    - Customers just as likely to shop competitors

# Customer Relationship Intensity and Life-Cycle Segmentation (cont'd.)

- Characteristics of the five stages (cont'd.)
  - Commitment
    - Customers experience highly satisfactory encounters
    - Customers develop fierce loyalty or strong preference
  - Separation
    - Conditions that made relationship valuable change
    - Parties enter separation stage
- **Goal** is to move customers into the commitment stage as quickly as possible and keep them there as long as possible
- Only want to see customers move into the separation stage if they are costing more to serve than they are worth

# Customer Acquisition: The Funnel Model

- Conceptual tool used to understand the overall nature of a marketing strategy
  - But also provides a clear structure for **evaluating** specific strategy elements
- Similar to customer life-cycle model but less abstract
  - **Better job** at showing effectiveness of two or more specific strategies

Needs identification

Search for and gather information about alternative products or services

Evaluate alternatives and make selections

Purchase

Conversion of shoppers into loyal supporters of product, service, and brand

500,000 ads are shown on Web pages

10,000 ad viewers become Web site visitors

900 Web site visitors become shoppers

500 Web site shoppers complete their purchases

80 purchasers become loyal, repeat customers

FIGURE 4-6 Funnel model of customer acquisition

# Costs of Customer Acquisition, Conversion, and Retention

- **Benefits** of acquiring new visitors are **different** for Web businesses with different revenue models

- **Acquisition cost** is the amount of money spent to bring one customer to the site

- **Conversion** is converting a visitor into a customer

  – **Conversion cost** is the total amount of money a site spends to induce a visitor to purchase, subscribe or register

- **Retained customers** return to site after purchase

  – **Retention cost** is the cost of inducing customers to return to a Web site and buy again

# Advertising on the Web

- Can use five-stage customer loyalty model
  - Awareness stage: message should inform
  - Exploration stage: message should explain how product works and encourage switching brands
  - Familiarity stage: message should (be persuasive) convince customers to purchase products or request a salesperson call
  - Commitment stage: message should reinforce customers' good feelings about the brand and remind them to buy
  - Separation stage customers NOT targeted in ads
- Online ads should be coordinated with existing advertising efforts

# Display Ads

- **Display ads:** small rectangular object with stationary or moving graphic (also called banner ads)
- Includes hyperlink to advertiser's Web site
  - Is versatile: including informative and persuasive functions
- From a simple picture to attention-grabbing ads include audio and video (created using Shockwave, Java, Flash)
- **Interactive marketing unit (IMU) ad formats**
  - The standard display ad sizes that most Web sites have voluntarily agreed to use

# Display Ads (cont'd.)

**Four standard formats** are encouraged to used:
- Leaderboard ad is designed to span Web page top or bottom
- Skyscraper ad is designed to be placed on the side of a Web page
  – Remains visible as user scrolls through page
- Two sizes of rectangle ads
- Advertising agencies and web site design firms create display ads for online clients
  – Price range $50 to more than $8000 depending on complexity

Leaderboard
728 × 90 pixels

Medium rectangle
300 × 250 pixels

Wide skyscraper
160 × 600 pixels

Rectangle
180 × 150 pixels
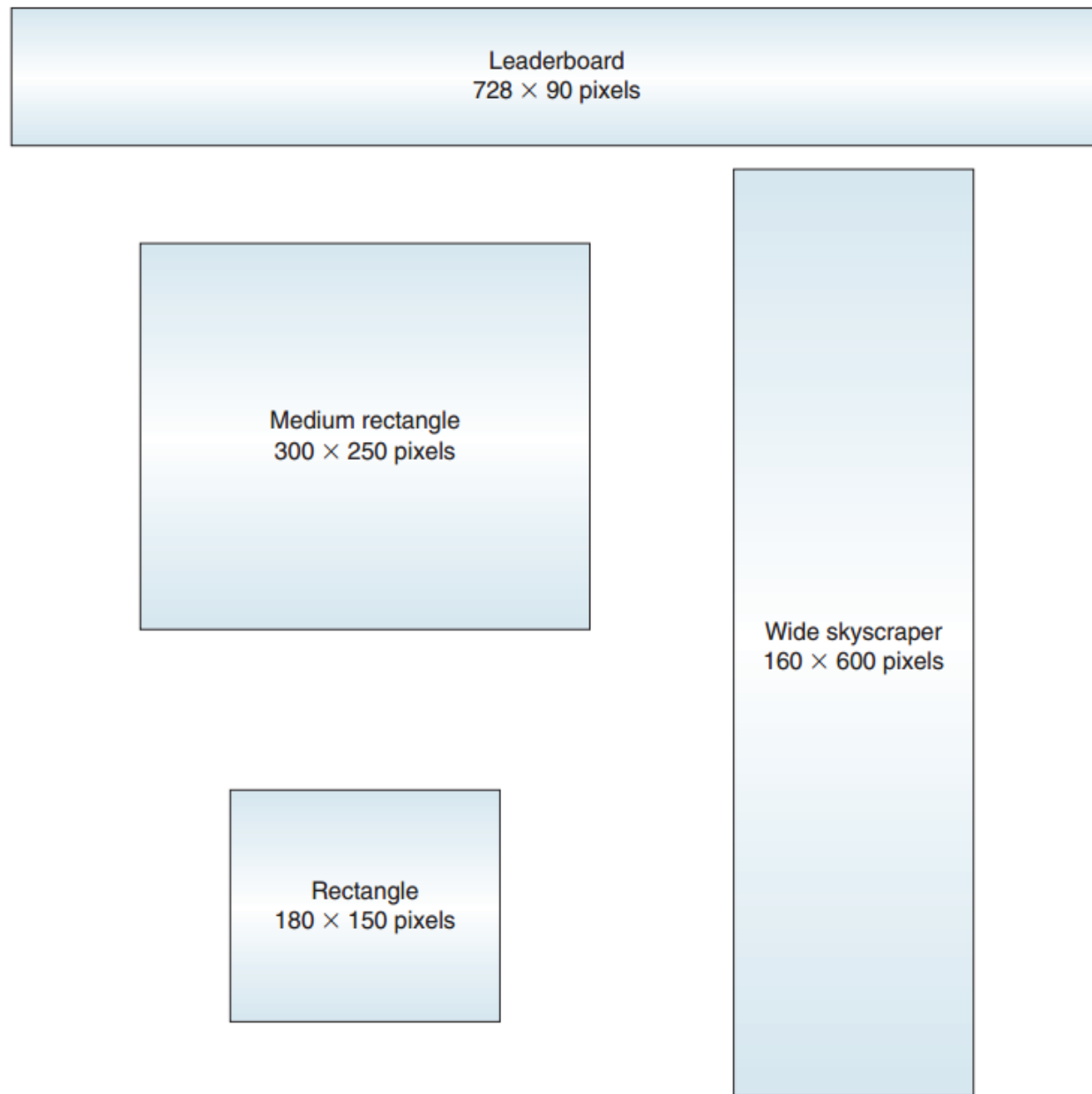
FIGURE 4-7 Interactive Advertising Bureau Universal  Ad Package format standards

# Intrusive Ad Formats

- **Pop-up ad** appears in its own window when user opens/closes Web page and require the user to click a small close button (difficult to find) in the window of the ad
  - Annoying and may create lasting bad will, but many advertisers find them to be effective
- Ad-blocking software prevents display ads and pop-up ads from loading
- **Interstitial ads** open in their own browser page when a user clicks to load a page
  - May close automatically or require user to close
  - Larger and more annoying than pop-up ads

# Rich Media and Video Ad Formats

- Generate graphical activity that "floats" over the Web page itself (instead of a new window)
  - Always contain moving graphics and usually include audio and video elements (compared with the pictures provided by display ads)
- Video ads are a form of rich media ad used on Web sites that deliver video
  - Either free standing or integrated into videos that the site visitor selects to watch
  - A pre-roll video ad requires a visitor to view all or part of an ad at the beginning of the clip
  - Most video ads are 10 to 30 seconds long
  - Becoming more important as in increasing number of people are watching video entertainment online.

# Text Ads

- Short promotional message with no graphic elements
  - Usually placed along Web page top or right side
- Google found these ads to be less obtrusive than display ads but very effective
  - Criticized for including too unobtrusive ads on its pages
  - Difficult to distinguish the paid ads from the search results
  - Google now clearly labels ads to prevent confusion
- Inline text ad are text in stories displayed as hyperlinks
  - Used by newspapers, magazine, etc. to prompt users to visit to learn more about a topic

# Text Ads – Google example

# Mobile Device Advertising

- Tremendous usage growth for mobile devices connected to Internet
- Some mobile software applications (mobile apps)  include advertising element
  - Messages displayed from advertisers
  - Appear on a part of the app screen or in a separate screen
  - Advertising space on mobile apps is sold in the same way as that on Web sites
  - One of the fastest-growing types of online promotion

# Site Sponsorships

- Web sites offer advertisers opportunity to sponsor all  (or parts) of their sites

- Give advertisers a chance to promote their products in a more subtle way compared with display or pop-up ads

- Goals similar to sporting event sponsors, television  program sponsors
  - Tie company (product) name to an event (set of information)

- Ethical concerns raised if sponsor allowed to create content or weave advertising into site's content
  - Should always be clearly identified as advertisement or as provided by the sponsor

# Online Advertising Cost and Effectiveness

- Issue of measuring Web site effectiveness has become important

- Pricing metric is cost per thousand (CPM) for mass media advertising
  - "M" from Roman numeral for "thousand"
  - Dollar amount paid for every thousand people in the estimated audience

- **Cost per click (CPC)** is an alternative to CPM for online advertising
  - Charge is for **click**

# Online Advertising Cost and Effectiveness (cont'd.)

- A **visit** occurs when a visitor requests a page from a Web site
  - Trial visit is the first time a particular visitor loads a Web site page
  - Repeat visit is subsequent page loads
- Each page loaded by visitor counts as a **page view**
  - If page contains an ad, called an **ad view**
- Some Web pages have display ads that continue to load and reload as long as the page is open
  - Each time the display ad loads is an **impression**
  - If visitor clicks the display ad, action is a **click** or **click-through**

| Medium | Description | Audience Size | Cost per Thousand (CPM) |
|---|---|---|---|
| Network television | 30-second commercial | 10 million–50 million | $10–$50 |
| Local television station | 30-second commercial | 50,000–2 million | $3–$25 |
| Cable television | 30-second commercial | 100,000–500,000 | $8–$25 |
| Radio | 60-second commercial | 50,000–2 million | $2–$8 |
| Major metro newspaper | Full-page ad | 100,000–600,000 | $5–$40 |
| Regional edition of a national magazine | Full-page ad | 50,000–900,000 | $40–$100 |
| Local magazine | Full-page ad | 3000–80,000 | $100–$140 |
| Direct mail coupon pack | Mailed in letter-sized envelope | 10,000–200,000 | $15–$20 |
| Billboard | Highway billboard | 100,000–3 million | $1–$8 |
| Online | Display ad | 10,000–50 million | $1–$15 |
| Online | Video/Rich media | 10,000–50 million | $2–$50 |
| Online | Text ad | 10,000–50 million | $1–$500 |
| Targeted e-mail | Single mailing | 10,000–10 million | $5–$15 |
| Mobile ads | App-embedded | 10,000–5 million | $1–$5 |

FIGURE 4-10 CPM rates for advertising in various media

# Online Advertising Cost and Effectiveness  (cont'd.)

- Difficult for companies to gauge the cost and benefits of advertising on the Web

- Many have developed new metrics to evaluate the  number of desired outcomes advertising yields
  - Instead of CPM or CPC, they measure the number of new visitors to their site who buy for the first time after arriving by way of a click-through
  - Then they calculate the advertising cost of acquiring one customer on the Web, and do comparison with traditional ways

- Most analysts agree that online advertising is much more effective if properly targeted

# E-Mail Marketing

- Online ads can reach site visitors who are looking for something specific
- This makes online ads more successful than ads viewed by a general population
- Market segmentation is therefore an important element in online advertising process
- One useful marketing tool that uses market segmentation effectively is e-mail marketing
  - Used to announce new products or features
  - Used to announce sales on existing products

# Unsolicited Commercial E-mail (UCE, Spam)

- Unsolicited Commercial E-mail (UCE, Spam, bulk mail) is electronic junk mail
  - Includes solicitations, ads or e-mail chain letters
  - Wastes time, disk space, and consumes large amounts of Internet capacity
- Key element to in any e-mail strategy
  - Obtain customer approval prior to sending

# Permission Marketing

- **Conversion rate** is the percentage of recipients responding to an ad or promotion
  - Ranges from 10% to more than 30% on requested e-mail messages
  - Higher than click-through rates on display ads (<0.5% and decreasing)
- **Opt-in e-mail** is the practice of sending e-mail messages to people who request information
  - Part of permission marketing strategy
  - More successful than the strategy of sending general promotional messages through the mass media
  - Example companies: ConstantContact, Yesmail, Return Path

# Combining Content and Advertising

- **Combine** useful content (articles, news stories of interest) with an advertising e-mail message can increases acceptance of e-mail
- Advertising e-mail message is hyperlinks instead of large attachments
  – Takes customers to advertiser's Web site content
  – Easier to induce customer to stay on the site and consider making purchases
- Coordination across media outlets is an important element in any marketing strategy
  – Other marketing efforts undertaken at the same time should be consistent with the e-mail's message

# Technology-Enabled Customer Relationship Management

- **Clickstream** is the information that a Web site can gather about its visitors, e.g., which pages were viewed, how long each page was viewed, the sequence, etc.

- **Technology-enabled relationship management** occurs when firm obtains information on customer behavior, preferences, needs and buying patterns, and uses them to
  - Set prices, negotiate terms, tailor promotions, add product features, customize customer relationship
  - Also called **Customer Relationship Management (CRM), technology-enabled customer relationship management** or **electronic Customer Relationship Management (eCRM)**

# CRM as a Source of Value

- **Good CRM** systems gather information from every customer touchpoint

- Multiple sources of information about customers is entered into a large database called a **data warehouse**

❑ **Data mining** is a **process** with well-understood stages based on
  - ▪ application of information technology
  - ▪ analyst's creativity
  - ▪ business knowledge
  - ▪ common sense

# Example 1: Hurricane Frances (1/2)

*Hurricane Frances was on its way, barreling across the Caribbean, threatening a direct hit on Florida's Atlantic coast. Residents made for higher ground, but far away, in Bentonville, Ark., executives at Wal-Mart Stores decided that the situation offered a great opportunity for one of their newest data-driven weapons ...* **predictive technology***.*

*A week ahead of the storm's landfall, Linda M. Dillman, Wal-Mart's chief information officer, pressed her staff to come up with* **forecasts** *based on what had happened when Hurricane Charley struck several weeks earlier. Backed by the trillions of bytes' worth of shopper history that is stored in Wal-Mart's data warehouse, she felt that the company could 'start predicting what's going to happen, instead of waiting for it to happen,' as she put it. (Hays, New York Times, 2004)*

# Example 1: Hurricane Frances (2/2)

- ❑ Why might data-driven prediction be useful?
  - ▪ Bottled water, or flashlights?
  - ▪ A particular DVD sold out?
- ❑ Discover sales patterns due to the hurricane that are NOT obvious!
- ❑ Identify unusual local demand for products

*'We didn't know in the past that **strawberry Pop-Tarts** increase in sales, like seven times their normal sales rate, ahead of a hurricane,' Ms. Dillman said in a recent interview.' And the pre-hurricane top-selling item was **beer**.*

# Example 2: Predicting customer churn (1)

- ❑ Many cellphone companies have major problems with customer retention
- ❑ Cellphone market is saturated
- ❑ **Churn:** customers switching from one company to another, which is expensive for companies
- ❑ **Task:** keep your customers by predicting who should get a retention offer

CONTRACT

# Example 2: Predicting customer churn (2)

- ❑ What data you might use?

- ❑ How would they be used?

- ❑ How should the company choose a set of customers to receive their offer in order to **best reduce churn** for a particular incentive budget?

# From business problems to data mining

- ❑ **Decompose** a data analytics problem into pieces such that you can solve a known task with a tool
- ❑ There is a large number of data mining algorithms available, but only a limited number of data mining tasks
- ❑ We will illustrate the **fundamental concepts** based on
  - Classification
  - Regression

# Classification

- **Classification** attempts to predict, for each individual in a population, which of a (small) set of classes that individual belongs to
  - *E.g., "Among all the customers of a cellphone company, which are likely to correspond to a given offer?"*
- Classification algorithms provide **models** that determine which class a new individual belongs to
- Classification is related to **scoring** or **class probability estimation**
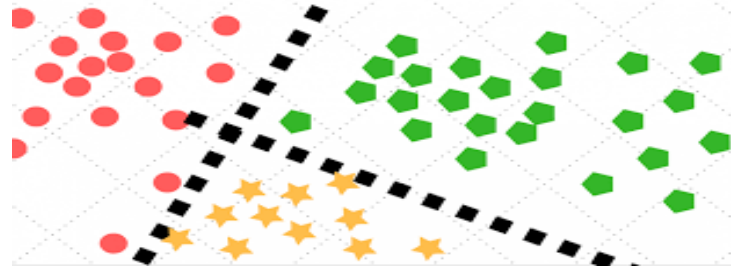
# Regression

- **Regression** (value estimation) attempts to estimate or predict, for each individual, the numerical value for that individual
    - *E.g., "How much will a given customer use the service?" Predicted variable: service usage*
- Generate regression model by looking at other, similar individuals in the population
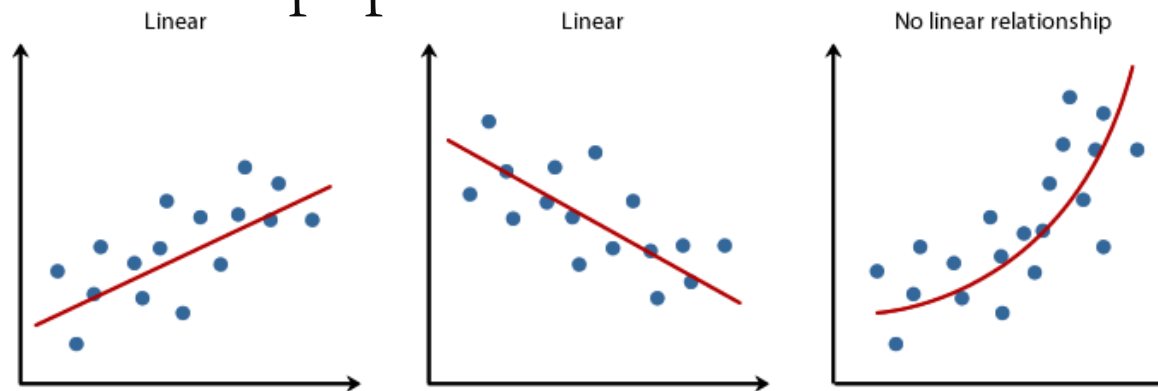
# Similarity Matching

- ❏ **Similarity matching** attempts to identify similar individuals based on the data known about the individuals
- ❏ Find similar entities
- ❏ **Basis** for making product recommendations
  - ▪ *E.g., "Find people who are similar to you in terms of the products they have liked or purchased"*

- ❏ Similarity measures underlie certain solutions to other data mining tasks

# Clustering

❑ **Clustering** attempts to group individuals in a population together by their similarity, but without regard to any specific purpose
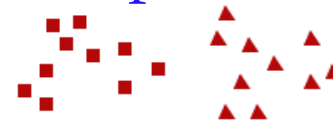
- *E.g., "Do customers form natural groups or segments?"*
  *Result: groupings of the individuals of a population*

❑ Useful in preliminary domain exploration

(a) Original points          (b) Two clusters

(c) four clusters          (d) Six clusters

# Co-Occurrence Grouping

❑ Attempts to find **associations** between entities based on transactions involving them

❑ Aka **association rules** or **market-basket analysis**

  ▪ *E.g., "What items are commonly purchased together?"*

❑ Considers similarity of objects based on their appearing together in transactions (compared with clustering)

❑ Included in recommendation systems (people who bought X also bought Y)

❑ **Result:** a description of items that occur together



Item set A= {Onion, potato}    Item set B= {Beef}

Association Rule {Onion, potato} -> {Beef}
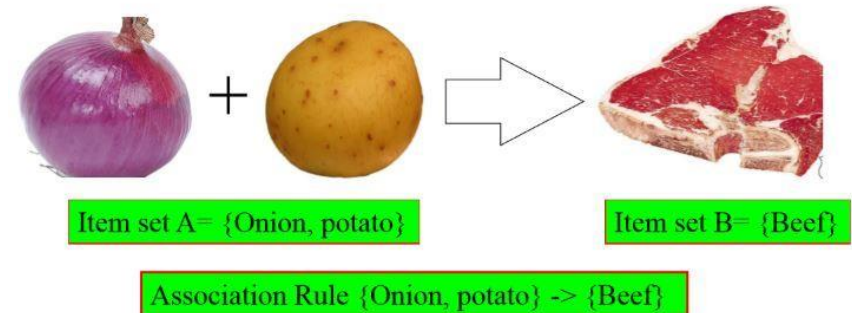
# Profiling

- ❑ Attempts to characterize the typical behavior of a group or population
- ❑ Aka **behavior description**
  - ▪ *E.g., "What is the typical cellphone usage of this customer segment?"*
- ❑ Often used to establish behavioral norms for anomaly detection (fraud detection)

# Some More Data Mining Tasks

❑ **Link prediction** attempts to predict connections between data items (→social network systems)

- *E.g., "Since you and Karen share ten friends, maybe you'd like to be Karen's friend?"*



❑ **Data reduction** attempts to take a large data set of data and replace it with a **smaller** set of data that contains the relevant information

❑ Easier processing, but often loss of information

# Creating and Maintaining Brands on the Web

- Branded products easier to advertise and promote
  - Each product carries reputation of the brand name
  - Value far exceeds cost of creating them
- Three key brand elements
  - Product **differentiation** clearly distinguishes product
  - **Relevance** is degree to which product offers utility to a potential customer
  - **Perceived value** (key element) occurs when customer perceives a value in buying product
- Environmental changes cause brands to lose value

| Element | Meaning to Customer |
|---|---|
| Differentiation | In what significant ways is this product or service unlike its competitors? |
| Relevance | How does this product or service fit into my life? |
| Perceived value | Is this product or service good? |

FIGURE 4-13 Elements of a brand

# Emotional Branding vs. Rational Branding

- **Emotional branding** use emotional appeals in their advertising to establish and maintain brands
  - Works well on television, radio, billboards and print
  - Ad targets in passive information acceptance mode
  - Difficult to convey on Web which is an active medium controlled by customer
- **Rational branding** offers to help Web users in some way in exchange for viewing an ad
  - Relies on cognitive appeal of specific help offered, instead of a broad emotional appeal

# Viral Marketing Strategies and Social Media

- **Viral marketing** relies on existing customers to tell prospective customers about products or service

- Social media marketing is best done using an indirect approach
  - People do not use social media to shop, they use social media to socialize
  - Encourage community to discuss the desirability of a product or service, instead of telling them that it has something to sell
  - Web site followers on a company's discussion activity are called **fans** (metric of assessing the success or not)

**Emily Turner**

I'm off to the mall! Hope I can score some Fuzzter boots on sale!

Like - Comment 27 minutes ago

1. Emily posts a status report that includes a tag for her favorite brand of boots, Fuzzter.

2. Emilly's friends all see the post about the Fuzzter boots and several of them share the post.

3. Friends of Emily's friends are now aware of the Fuzzter brand of boots.

FIGURE 4-14 Viral marketing through social media