**Revenue Models**
- Revenue model of selling goods and services on the Web
- Based on mail order catalog revenue model that predates the Web
- Mail order or catalog model
- Proven to be successful for wide variety of consumer items
- Web catalog revenue model
- Taking the catalog model to the Web

**Computers and Consumer Electronics**
- Apple, Dell, Gateway, and Sun Microsystems
- Have had great success selling on the Web
- Dell
- Created value by designing entire business around offering high degree of configuration flexibility to its customers

**Books, Music, and Videos**
- Retailers using the Web catalog model to sell books, music, and videos
- Among the most visible examples of electronic commerce
- Jeff Bezos
  - Formed Amazon.com
- Jason and Matthew Olim
  - Formed online music store they called CDnow
  - Used the Web catalog revenue model

**Luxury Goods**
- People are still reluctant to buy through a Web site
- Web sites of Vera Wang and Versace
- Constructed to provide information to shoppers, not to generate revenue
- Web site of Evian
- Designed for a select, affluent group of customers

**Clothing Retailers**
- Lands’ End
  - Pioneered idea of online Web shopping assistance with its Lands’ End Live feature in 1999
  - Personal shopper
  - Intelligent agent program that learns customer’s preferences and makes suggestions
  - Virtual model
  - Graphic image built from customer measurements
Flowers and Gifts

• 1-800-Flowers
• Created online extension to its telephone order business
• Chocolatier Godiva
• Offers business gift plans on its site

Digital Content Revenue Models

• Firms that own intellectual property
• Have embraced the Web as a new and highly efficient distribution mechanism
• Lexis.com
• Provides full-text search of court cases, laws, patent databases, and tax regulations
• ProQuest
• Sells digital copies of published documents

Advertising-Supported Revenue Models

• Broadcasters provide free programming to an audience along with advertising messages
• Success of Web advertising hampered by
• No consensus has emerged on how to measure and charge for site visitor views
  • Stickness of a Web site: ability to keep visitors and attract repeat visitors
• Very few Web sites have sufficient visitors to interest large advertisers

Web Portals

• Web directory
• A listing of hyperlinks to Web Pages
• Portal or Web portal
• Site used as a launching point to enter the Web
• Almost always includes a Web directory and search engine
• Example: Yahoo, AOL, Altavista

Advertising-Subscription Mixed Revenue Models

• Subscribers
• Pay a fee and accept some level of advertising
• Typically subjected to much less advertising
• Used by
• The New York Times and The Wall Street Journal

Advertising-Subscription Mixed Revenue Models (continued)

• Business Week
• Offers some free content at its Business Week online site
• Requires visitors to buy subscription to Business Week print magazine
Fee-for-Transaction Revenue Models
- Businesses offer services and charge a fee based on number or size of transactions processed
- Disintermediation
- Removal of an intermediary from value chain
- Reintermediation
- Introduction of a new intermediary

Fee-for-Service Revenue Models
- Fee based on value of service provided
- Services
  - Range from games and entertainment to financial advice
  - Online games
    - Growing number of sites include premium games in their offerings
    - Site visitors must pay to play these premium games

Fee-for-Service Revenue Models (Continued)
- Concerts and films
  - As more households obtain broadband access to the Internet
  - Companies are providing streaming video of concerts and films to paying subscribers

Revenue Models in Transition
- Many companies have gone through transitions in their revenue models as they learn how to do business successfully on the web.
  - As more people use the web to buy goods and services, and as the behavior of those web users changes, companies often find that they must change their revenue models to meet the needs of those new and changing web users
- Mixture

Multiple Transitions
- Encyclopedia Britannica
  - Original offerings
  - The Britannica Internet Guide
    - Free Web navigation aid
  - Encyclopaedia Britannica Online
    - Available for a subscription fee or as part of CD package
  - 1999
    - Converted to a free, advertiser-supported site
  - 2001
    - Returned to a mixed model

Revenue Strategy Issues
- Channel conflict
  - Occurs whenever sales activities on a company’s Website interfere with existing sales outlets
  - Also called cannibalization
- Channel cooperation
  - Giving customers access to the company’s products through a coordinated presence in all distribution channels
Strategic Alliances and Channel Distribution Management

- Strategic alliance
- When two or more companies join forces to undertake an activity over a long period of time
- Channel distribution managers
- Companies that take over responsibility for a particular product line within a retail store

Creating an Effective Web Presence

- An organization’s presence
- The public image it conveys to its stakeholders
- Stakeholders of a firm
- Include its customers, suppliers, employees, stockholders, neighbors, and the general public

Achieving Web Presence Goals

- Objectives of the business
- Attracting visitors to the Web site
- Making the site interesting enough that visitors stay and explore
- Convincing visitors to follow the site’s links to obtain information

Achieving Web Presence Goals (Continued)

- Objectives of the business
- Creating an impression consistent with the organization’s desired image
- Building a trusting relationship with visitors
- Reinforcing positive images that the visitor might already have about the organization
- Encouraging visitors to return to the site

Profit-Driven Organizations

- Toyota site
- A good example of an effective Web presence
- Provides links to:
  - Detailed information about each vehicle model
  - A dealer locator page
  - Information about the company and the financing services it offers

Toyota U.S. Home page
Not-for-Profit Organization
• Key goal for the Web sites
• Information dissemination
• Key element on any successful electronic commerce Web site
• Combination of information dissemination and a two-way contact channel

Web Site Usability
• Motivations of Web site visitors
• Learning about products or services that the company offers
• Buying products or services that the company offers
• Obtaining information about warranty, service, or repair policies for products they purchased
• Obtaining general information about the company or organization

Web Site Usability (Continued)
• Motivations ……
• Obtaining financial information for making an investment or credit granting decision
• Identifying the people who manage the company or organization
• Obtaining contact information for a person or department in the organization

Making Web Sites Accessible
• One of the best ways to accommodate a broad range of visitor needs
• Build flexibility into the Web site’s interface
• Good site design
• Lets visitors choose among information attributes
• Web sites
• Can offer visitors multiple information formats by including links to files in those formats

Making Web Sites Accessible (Continued)
• Goals that should be met when constructing Web sites
• Offer easily accessible facts about the organization
• Allow visitors to experience the site in different ways and at different levels
• Sustain visitor attention and encourage return visits
• Offer easily accessible information

Trust and Loyalty
• Studies by business researchers
• A 5 percent increase in customer loyalty can yield profit increases between 25% and 80%
• Repetition of satisfactory service
• Can build customer loyalty
• Customer service
• A problem for many electronic commerce sites
Usability Testing
• Companies that have done usability tests
• Conduct focus groups
• Watch how different customers navigate through a series of Web site test designs
• Cost of usability testing
  • Low compared to total cost of a Web site design or overhaul

Customer-Centric Web Site Design
• Putting the customer at the center of all site designs
• Guidelines
  • Design site around how visitors will navigate the links
  • Allow visitors to access information quickly
  • Avoid using inflated marketing statements

Customer-Centric Web Site Design (Continued)
• Guidelines
  • Avoid using business jargon and terms that visitors might not understand
  • Be consistent in use of design features and colors
  • Make sure navigation controls are clearly labeled
  • Test text visibility on smaller monitors
  • Conduct usability tests

Connecting With Customers
• Personal contact model – one to one
  • Firm’s employees individually search for, qualify, and contact potential customers
• Mass media approach
  • Firms prepare advertising and promotional materials about the firm and its products
  • The web – many to one; many to many

Business Communication Modes

EC Technologies (info session)
Electronic Commerce

INTERACTIVE VOICE REMOTE ACCESS
APPLICATION GENERATED FAX
ELECTRONIC REPORTS
INTERNET DISTRIBUTORS, OPERATORS & EXTERNAL INFORMATION
INTRANET INTRANET
E-MAIL PRIVATE/PUBLIC MAIL “BACK BONE”

**EC should use all of the technologies**

**INTERACTIVE VOICE RESPONSE**

**Smart Cards**

**Smart Card System for transport in HK & Singapore**

**Convergence of Technologies**

- Bringing together of technologies into a single medium
  - Eg data and voice transport networks
  - Web TV
  - WAP & PDA devices—move to wireless devices
- Leads to
  - user convenience
  - improved quality of service
  - reduced expenses

**No database access is necessary**

- Voice Question
- Press a Key “Press One if…”
- Voice Response

**Application System Processes Data**

- Control Interaction
- Records Data & Voice
- Outputs a File of Data
- Provides Access to Voice

**E-MAIL**

**PRIVATE/PUBLIC MAIL “BACK BONE”**

**E-mail System**

**MESSAGE MANAGEMENT**

**PRIVATE/PUBLIC MAIL “BACK BONE”**

**Smart Card System for transport in HK & Singapore**

**Use on transport**

**Buy/Recharge card**

**Convergence of Technologies**

- Bringing together of technologies into a single medium
  - Eg data and voice transport networks
  - Web TV
  - WAP & PDA devices—move to wireless devices
- Leads to
  - user convenience
  - improved quality of service
  - reduced expenses
Will the world go wireless?
- It might depend on
  - Geography
  - Nationality
  - Topography
  - Age of users
  - Technology
  - Content
  - Applications
  - ....?
  - ....?

Are the stats out of control?
- “For many of these predictions to work, we have to accept the assumption that every man, woman and child in the world will have a phone by about 2006 ….. And by the next decade, your dog will have a pair of phones and a DVD player.”
- An – editorial comment at www.planetit.com/techcenters/docs/mobile/wireless/expert/

Current and future state of wireless

<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscribers</td>
</tr>
<tr>
<td>Internet users (millions)</td>
</tr>
<tr>
<td>Wireless Internet users as % total internet users</td>
</tr>
</tbody>
</table>

Source: eMarketer, March 2002

Uptake predictions for the young
- US – 15% of 10-19 are mobile users
  - 68% by 2005
- Finland – 90% of 13 to 18 own cellular phones
- Globally by 2004, 50% of 10-24 will be wireless subscribers – 43 million

Opportunities
- Wireless may help some countries catch up
- Geography/economies make landlines difficult in some countries
- Some like Japan have less wired Internet access so wireless is more necessary

Privacy ??
You are standing in the local shopping mall.
You glance at a shop window.
Your phone rings with a message that the sneakers you are looking at are on sale….
scary stuff??
What WAP promises

- The WAP Forum... “Imagine stepping out of an office building to go to the airport. Using your WAP-enabled wireless device you check the traffic congestion and the train timetable and purchase a train ticket online. On the way to the airport, you select your aisle seat and check in for the flight reserving a special meal, and then unpack your raincoat after looking up the weather conditions at your destination.”

WAP Apps

- Pocket Doctor
  - On Web and WAP phones Dec 2000 translating into 7 languages and i-mode
  - Health-E-Ref, a medical encyclopedia written especially for Pocket Doctor
  - Symptom Analyzer
  - Online GP advice
- All free services initially
- New Services will have charges, eg Pregnancy US$15 for 10-month subscription

Source: http://wireless.newsfactor.com/perl/story/6116.html

Mobile Banking on WAP

M-commerce – Just a toy?

- In Japan and Korea, market is approaching maturity
- Average i-mode subscriber is on line for 3 to 4 minutes, 10 – 12 times per day
- Use mobiles while waiting around, peaks during “rush hours”
- Use is to kill time, NOT to do things faster or better

IS GPS the killer app?

- Tracking stuff
  - Children, dogs, stolen vehicles, spouses??
  - TelEvoke device can notify you if someone opens car door without a key, you can then get vehicle co-ordinates online, you can send messages to the car e.g. honk horn, lock windows, shut off engine (safety implications here!)