Lecture notes I- 2
Pricing Information

- Pricing strategies
- Personalized pricing
- Group pricing

Example: Britannica v. Encarta

- Britannica: 200 years, $1,600 for a hardback set
- Microsoft purchased Funk & Wagnalls to make Encarta (1992)
- Britannica response
  - Sales dropped 50% between 1990 and 1996
  - Online subscription at $2,000 per year
  - Online subscription at $120
  - CD for $200
  - CD $70-$125 since 1996
- Problem: Whether it can sell to a large enough market to recover its costs.

Production Costs

- First-copy costs dominate
  - Sunk costs (not recoverable)
- Variable costs small; no capacity constraints
  - Microsoft has 92% profit margins
- Significant economies of scale
  - Marginal cost less than average cost
  - Declining average cost

Implications for Market Structure

- Cannot be "perfectly competitive"
- 2 sustainable structures
  - Dominant firm/monopoly
  - Differentiated product
- Combinations of above

Strategy

- What to do
  - Differentiate your product
    - Add value to the raw information to distinguish yourself from the competition
    - Achieve cost leadership through economies of scale and scope

Commoditized Information

- CD ROM phonebooks
- 1986: Nynex charged $10,000 per disk for NY directory
- ProCD and Digital Directory Assistance
- Chinese workers at $3.50 daily wage
- Bertrand competition
  - Start at $200 each
  - Price forced to marginal cost
<table>
<thead>
<tr>
<th>If You are in Commodity Business</th>
<th>Differentiated Product</th>
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<tbody>
<tr>
<td>• Cost leadership</td>
<td>• Bigbook (maps + database of phone numbers and address)</td>
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<td>• Sell the same thing over again</td>
<td>• West Publishing (copyright key number systems)</td>
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<tr>
<td>– Baywatch (TV show), Reuters</td>
<td>– Copyright and content</td>
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<tr>
<td>– Reduces average cost</td>
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<table>
<thead>
<tr>
<th>Personalize Your Product</th>
<th>Know Your Customer</th>
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<tr>
<td>• Personalize product, personalize price</td>
<td>• Registration</td>
</tr>
<tr>
<td>– PointCast</td>
<td>– Required: NY Times</td>
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<tr>
<td>– Personalized ads</td>
<td>– Billing: Wall Street Journal (ZIP code)</td>
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<tr>
<td>• Hot words (in cents/view)</td>
<td>• Know your consumer</td>
</tr>
<tr>
<td>– Deja News: 2.0 4.0</td>
<td>– Observe Queries</td>
</tr>
<tr>
<td>– Excite: 2.4 4.0</td>
<td>– Observe Clickstream</td>
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<tr>
<td>– Infoseek: 1.3 5.0</td>
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<td>– Yahoo: 2.0 3.0</td>
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<table>
<thead>
<tr>
<th>Clickstream</th>
<th>Logic of Pricing</th>
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<tr>
<td>• Interest and how long you look</td>
<td>• Quicken example</td>
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<tr>
<td>• Problem: Connectionless nature of HTTP</td>
<td>– 1 million wtp $60, 2 million wtp $20?</td>
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<tr>
<td>• Java: a promising solution</td>
<td>– Demand curve (next slide)</td>
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<td>– Virtual Vineyards</td>
<td>– Assumes only one price</td>
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<td>– Optimized browsers</td>
<td>• $60 or $20 has same revenue $60 million</td>
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<td>– Price discrimination</td>
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<td>• Price discrimination gives $100 million</td>
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<td></td>
<td>– Problems</td>
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<td>• How do you know wtp?</td>
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<td>• How do you prevent arbitrage?</td>
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Forms of Differential Pricing

- A.C. Pigou (1920)
- Personalized pricing (first degree pricing)
  - Sell to each user at a different price
- Versioning (second degree pricing)
  - Offer a product line and let users choose
- Group pricing (third degree pricing)
  - Based on group membership/identity

Personalized Pricing

- Vendor charges different prices to different consumer
  - Market research
  - Selling via catalog
- Easy on the Internet
  - Eg. Online travel agency
    - Deep-sea fishing (high-price package)
    - Snorkeling (budget package)

Personalized Pricing - Internet

- Example
  - Virtual Vineyards (trace clickstream)
  - Amazon.com (recommendation systems)
  - Auctions
    - Closeouts, promotions

Personalized Pricing (summary)

- Personalize your product and personalizing you pricing
- Know the customer
- Differentiate your prices when possible
- Use promotions to measure demands

Group Pricing

- The prices weren’t really perfectly individualized. Instead, people who had certain purchase histories, zip codes, or behavior patterns were offered different prices (based on a group identity)
  - Price sensitivity
  - Network effects, standardization
  - Lock-In
  - Sharing
Price Sensitivity

- International pricing
  - US edition textbook: $70
  - Indian edition textbook: $5
- Problems raised by Internet
  - Localization as solution

Network Effects

- Sellers of software can exploit this desire for standardization and offer the organization quality discount
- Compatibility
  - Site licenses
  - Variety of schemes: per client, per user, per server, etc.

Lock-In

- If you are selling a good that has big switching costs, then it pays you to offer deep discounts to get customers
- Example
  - Wall Street Journal’s Newspapers-in-education
- Microsoft Office
  - Per seat, concurrent

Sharing

- Inconvenient for the individual user to manage information
- Information Intermediaries such as library or system administrators can perform the coordination task
- Transactions cost of sharing
  - Videos
  - Desire for repeat play

Summary

- Understand cost structure
- Commodity market: be aggressive, not greedy
- Differentiate product and price
- Understand consumer
- Personalize products and prices
- Consider selling to groups