

### Information Rules:

A Strategic Guide to the Network Economy

## Pricing Information

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## Britannica v. Encarta

- Britannica: 200 years, \$1,600 for set
- 1992: Microsoft purchased Funk & Wagnalls to make Encarta
- Britannica response
  - Online subscription at \$2,000 per year
  - Sales dropped 50% between 1990 and 1996
  - Online subscription at \$120
  - CD for \$200, since 1996 \$70-\$125

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## 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

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## Implications for Market Structure

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

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## 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

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## 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

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## If You are in Commodity Business

- Cost leadership
- Sell the same thing over again
  - Baywatch, Reuters
  - Reduces average cost

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## Differentiate Product

- Bigbook and maps
- West Publishing and page numbers
- Copyright and content

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## First-mover Advantages

- Avoid greed
  - Respond to threat quickly and decisively
  - Limit pricing; highly credible with high FCs
- Play tough
  - Discourage future entry
  - Protects expression, not ideas
  - Imitation as a strategy
  - Constant innovation (search engines)

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## Hard to do for Incumbent

- May not recognize threat till too late
  - CP/M
  - Wordstar
  - VisiCalc

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## Personalize Your Product

- Personalize product, personalize price
  - PointCast
  - Personalized ads
- Hot words (in cents/view)
  - Deja News: 2.0 4.0
  - Excite: 2.4 4.0
  - Infoseek: 1.3 5.0
  - Yahoo: 2.0 3.0

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## Know Your Customer

- Registration
  - Required: NY Times
  - Billing: Wall Street Journal
  - AOL's ace in hole: ZAG
- Know your consumer
  - Observe Queries
  - Observe Clickstream

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## Clickstream

- Interest and how long you look
- Connectionless nature of HTTP
- Java a promising solution
  - Peapod
  - Virtual Vineyards
  - Optimized browsers

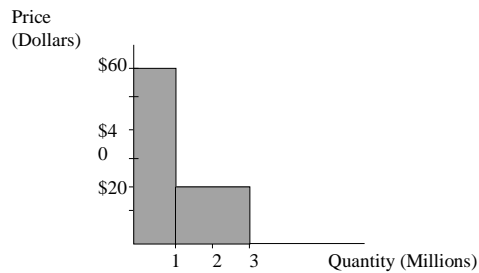
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## Logic of Pricing

- Quicken example
  - 1 million wtp \$60, 2 million wtp \$20?
  - Demand curve (next slide)
  - Assumes only one price
    - Price discrimination gives \$10 million
  - Problems
    - How do you know wtp?
    - How do you prevent arbitrage?

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## Demand Curve



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## Forms of Differential Pricing

- Personalized pricing
  - Sell to each user at a different price
- Versioning
  - Offer a product line and let users choose
- Group pricing
  - Based on group membership/identity

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## Personalized Pricing

- Catalog inserts
  - Market research
  - Differentiation
- Easy on the Internet

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## Traditional Industries

- Airlines
- Direct mail
- Lexis/Nexis
- Supermarket scanners
  - Profit margin more than doubled 1993-1996
  - More effective than other forms of advertising

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## Internet

- Virtual Vineyards
- Auctions
- Closeouts, promotions

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## Group Pricing

- Price sensitivity
- Network effects, standardization
- Lock-In
- Sharing

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## Price Sensitivity

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

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## Network Effects

- Compatibility
  - Site licenses
  - Variety of schemes: per client, per user, per server, etc.
- Lock-In
  - *Wall Street Journal's* Newspapers-in-education
- Microsoft Office
  - Per seat, concurrent

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## Sharing

- Transactions cost of sharing
- Videos
- Desire for repeat play

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## Electric Library

- Who to sell to?
- Households
- Schools/libraries

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## Summary

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

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