

Information Rules:

A Strategic Guide to the Network Economy

Rights Management

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Intellectual Property Law

- “Intellectual property law cannot be patched, retrofitted, or expanded to contain digitized expression...*Information wants to be free.*”

John Perry Barlow

- Is he right?

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Production and Distribution

- Digital tech lowers production costs
- Digital tech lowers distribution costs
- Examples
 - Tape recorder lowers production, but not distribution costs
 - AM radio broadcast lowers distribution costs, not reproduction costs

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Make Lower Distribution Costs Work for You

- Information is an experience good
- Must give away some of your content in order to sell rest
- Can use product line/versioning
 - National Academy of Sciences Press
 - Easy to read, hard to print

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Demand for Repeat Views

- Give away all your content, but only once
- Music, books, video have different use patterns
- Children
 - Barney: free videos
 - Disney: sued day care centers
- Adults

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Demand for Similar Views

- Free samples direct customers back to you
- Playboy
- McAfee Associates
 - \$5 million in first year
 - \$3.2 billion market value by 1997
 - Half of virus protection market

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Demand for Complementary Products

- Give away index and sell content
 - Wall Street Journal, New York Times, Economist give away index
- Free content, organization/index is what matters
 - Farcast sells current awareness

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Illicit Copying

- Timely information: not a big problem
- Cheap information: not a big problem
- Negative feedback: the bigger you are, the easier to detect

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Lower Reproduction Costs

- Perfection isn't as important as commonly thought
- Digital Audio Tape (DAT)
 - SCMS inhibits copies of copies
- Analog video tapes:
 - 1979: 4 blanks for each pre-recorded
 - 1992: 1 to 1

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Trusted Systems

- Divx -- described earlier
- Single-play music CDs
- Weak link is in rendering

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Cryptolopes and Superdistribution

- Adobe's Type on Call CD
- Superdistribution: give it to a friend
 - Web rather than star-shaped network

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Problems

- Patent battles
- Standards battles
- Inconvenience
 - Spreadsheet copy protection
- Price of content
- Reliability
 - Technical and procedural

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Historical Examples

- Circulating libraries
 - 1741: Pamela
 - 1000 libraries by 1840
- Video stores
 - Video rental as prelude to purchase
 - Growing the market

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Choosing Terms and Conditions

- Revenue = price x quantity
- More liberal terms and conditions
 - Increases price
 - Decreases quantity sold

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Simple Model

- y = amount consumed
- x = amount sold
- $p(y)$ = demand, assume zero cost
- Baseline case: $\max p(y)y$
- Make T&C more liberal
 - $a p(y)$ with $a > 1$
 - $y = bx$ with $b < 1$

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Analysis

- $\max a p(y) x$
- $\max (a/b) p(y)$
- Conclusion: y the same, profits depend on a/b

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Transactions Costs

- Site license v individual licenses?
 - Who can distribute more cheaply?
 - How effectively can group aggregate value?

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Lessons

- Two challenges: cheap production, cheap distribution
- Cheap distribution: helps advertise by giving away samples
- Cheap distribution: good for biteleggers, but their need to advertise helps control them

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Lessons, continued

- Copy protection that imposes costs on users is vulnerable to competitive forces
- Basic tradeoff in terms and conditions: more liberal terms make product more valuable but may reduce sales
- Site licenses and other group pricing schemes are a valuable tool