The Economics of E-commerce and Technology

Reputation

Reputation

- Reputations are essential with experience goods
  - Where experience good after buying
- Reputation performs two functions
  - Allow people to learn about quality of product
  - Discipline bad behavior
- Offline
  - Long term relations, word-of-mouth, legal system
- Online reputation mechanisms
  - eBay – buyers and sellers rate each other
  - Yelp – customers review restaurants
  - Peer-to-peer networks – rate user's contribution to system

Reputation Mechanisms

- Challenges
  - Encourage participation
  - Extract accurate, useful information
  - Avoid strategic manipulation
- Information technology allows for precise management
  - What type of information is solicited?
  - When should it be solicited?
  - How is information aggregated?
  - What information is made available, and to whom?
- Examples
  - Detailed information (surveys) vs. positive/negative?
  - How filter out suspect reviews? Weight by trustworthiness?
  - Provide recent reviews or entire history? (eBay vs. Yelp)

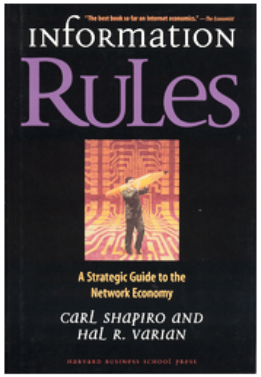
eBay

Typical eBay page

ebay Shop by category | All Categories | Search | Advanced

Back to search results | Listed as Information Rules : A Strategic Guide to the Network Ec... in category: Books > Textbooks, Education

FREE SHIPPING



$ Have one to sell? Sell it yourself

INFORMATION RULES - HAL R. VARIAN CARL SHAPIRO (HARDCOVER) NEW

Item condition: **Brand New**

Add to Watch list

Price: **US $28.37**

Buy It Now

Add to cart

Add to Watch list

BillMeLater New customers get $10 back on 1st purchase
Subject to credit approval. See terms

Shipping: FREE Standard Shipping | See details
Item location: **Indian Trail, North Carolina, United States**
Ships to: **Worldwide** See exclusions

Delivery: Estimated between Thu. Aug. 15 and Wed. Aug. 21
Includes **5 business days** handling time after receipt of cleared payment.

Payments: PayPal, Bill Me Later | See details

Returns: 30 days money back, buyer pays return shipping | Read details

eBay Buyer Protection
Covers your purchase price plus original shipping.
Learn more

Seller information
moviemars-books (255043) me
99.1% Positive feedback

Save this seller
See other items
Visit store: MovieMars Books

NEW
BETA Stuff by ebay
Keep track of all your shipments in one place
Watch the video
AdChoice

Reputation and eBay

- eBay has first-mover advantage
  - Does not guarantee success: Altavista, WordPerfect
  - Reputation system is key part of success
- Reputation system protects buyers
  - Is good delivered promptly?
  - Is good as described?
  - Outright fraud?
- System creates switching costs for reputable sellers
- More important as eBay increases high-values sales
  - Art, cars, houses, land

How Valuable is Seller Reputation?

- Reputation is useful [for postcards]
  - Having 2000 positive feedbacks and 1 negative yields 8% higher prices that having 10 positive feedbacks
  - When have little feedback, negatives make little difference. Reflects cheapness of online profiles.
- After receive first negative feedback
  - Weekly sales rates goes from +7% to -7%
  - Subsequent negative feedback arrives 25% more rapidly
- Seller exit
  - Exit more likely when reputation is low
  - Just before exit, sellers receive lots of negative feedback

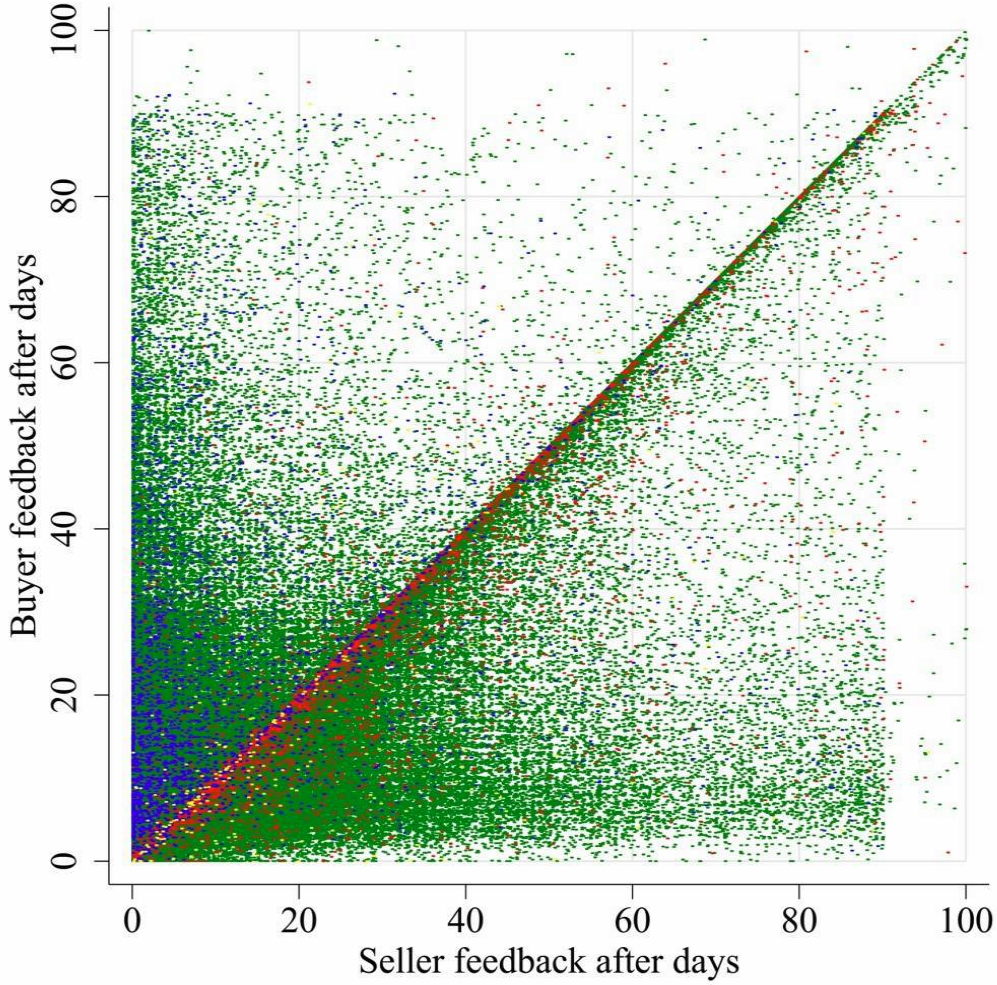
How Valuable is Seller Reputation?

- It's also valuable to be a "powerseller" or a "store".
- Saeedi (2012), looks at iPod prices:

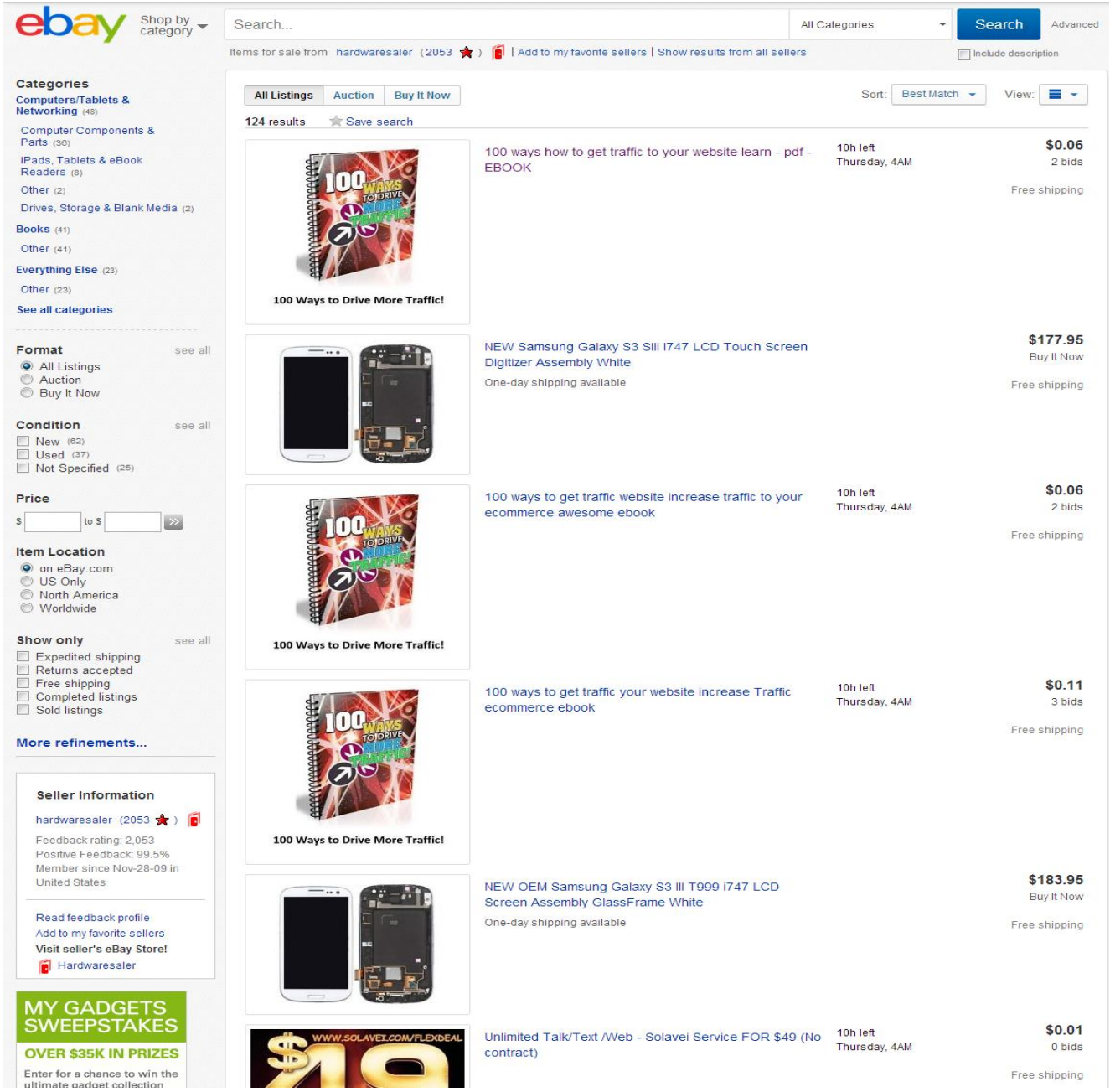
	Average Prices		Fitted Values	
	All iPods	New iPod Nano	Average Item	New, Nano, 8GB
All Sellers	$131.81	$132.95	$136.51	$135.34
Non-Powersellers & Non-Store	$130.70	$130.15	$122.18	$131.19
Stores	$135.96	$134.09	$128.80	$139.96
Powersellers	$134.95	$137.44	$137.79	$140.90
Powersellers & Stores	$139.90	$135.29	$145.35	$142.09

Does Reputation Work?

- Baseball card market on Ebay
  - Graded card: Ken Griffey Jr worth $1200 for 10, $150 for 9, $60 for 8.
- Graded market
  - Reputation of seller doesn't matter.
- Ungraded market
  - Higher claims lead to higher prices: $90 for 10, $70 for 9, $50 for others.
  - 10 claim not credible: should get card graded
  - When tested, quality independent of claims.
  - High claims had higher frauds (hit and run strategy).
  - Buyers and sellers of 10's less experienced
- Role of eBay reputation
  - High reputation less likely to claim "10"
  - Raises probability of sale, but not prices
  - Fixing claim, reputation has no effect on quality, lowers prob of fraud



Mutually positive feedback (N=451,227)
Only buyer left bad feedback (N=2,884)
Mutually bad feedback (N=5,279)
Only seller left bad feedback (N=357)


ebay
Shop by category
Search...
All Categories
Search
Advanced
Items for sale from hardwaresaler (2053) | Add to my favorite sellers | Show results from all sellers
Include description
Categories
Computers/Tablets & Networking (48)
Computer Components & Parts (36)
iPads, Tablets & eBook Readers (8)
Other (2)
Drives, Storage & Blank Media (2)
Books (41)
Other (41)
Everything Else (23)
Other (23)
See all categories
Format see all
All Listings
Auction
Buy It Now
Condition see all
New (62)
Used (37)
Not Specified (25)
Price
$ to $
Item Location
on eBay.com
US Only
North America
Worldwide
Show only see all
Expedited shipping
Returns accepted
Free shipping
Completed listings
Sold listings
More refinements...
Seller Information
hardwaresaler (2053)
Feedback rating: 2,053
Positive Feedback: 99.5%
Member since Nov-28-09 in United States
Read feedback profile
Add to my favorite sellers
Visit seller's eBay Store!
Hardwaresaler
MY GADGETS SWEEPSTAKES
OVER $35K IN PRIZES
Enter for a chance to win the ultimate gadget collection
All Listings
Auction
Buy It Now
Sort: Best Match
View:
124 results
Save search
100 Ways to Drive More Traffic!
100 ways how to get traffic to your website learn - pdf - EBOOK
10h left
Thursday, 4AM
$0.06
2 bids
Free shipping
NEW Samsung Galaxy S3 SIII i747 LCD Touch Screen Digitizer Assembly White
One-day shipping available
$177.95
Buy It Now
Free shipping
100 ways to get traffic website increase traffic to your ecommerce awesome ebook
10h left
Thursday, 4AM
$0.06
2 bids
Free shipping
100 ways to get traffic your website increase Traffic ecommerce ebook
10h left
Thursday, 4AM
$0.11
3 bids
Free shipping
NEW OEM Samsung Galaxy S3 III T999 i747 LCD Screen Assembly GlassFrame White
One-day shipping available
$183.95
Buy It Now
Free shipping
WWW.SOLAVEI.COM/FLEXDEAL
Unlimited Talk/Text /Web - Solavei Service FOR $49 (No contract)
10h left
Thursday, 4AM
$0.01
0 bids
Free shipping

Problems with Ebay Reputation

1. Feedback not sufficiently rich
   - Feedback often concerns time to delivery, not quality of card
   - Detailed review expires after 90 days
2. Easy to build up reputation
   - Market for feedback: buy "positive feedback book" $0.25
   - Build up as buyer, then become seller
3. Feedback is bilateral
   - Buyers fear retaliation from sellers
4. Reputation could be more informative
   - Weight by value of transaction
   - Weight by experience of buyer
   - Weight by recentness

Theory

Reputation and Learning

- Reputation provides information about underlying quality
  - Helps solve "adverse selection"
  - Epinions, Amazon's reviews
- Example: Product is 'high' or 'low' quality with equal prob
  - High product yields v=10 with prob ¾, and v=0 with prob ¼
  - Low product yields v=10 with prob ¼, and v=0 with prob ¾
- First customer
  - Willing to pay: Pr(high)U(high) + Pr(low)U(low) = $5
- Second customer (if first liked product)
  - Bayes rule: $Pr[high|v_1=10] = ¾$
  - Willing to pay: Pr(high)U(high) + Pr(low)U(low) = $6¼
  - What if first did not like the product?

Reputation and Discipline

- Reputation punishes bad behavior ("moral hazard")
  - Helps overcome eBay rating, restaurant hygiene
- Firm chooses high effort (cost c_H) or low effort (c_L)
  - Benefit to customers: $v_H > v_L$. But agent does not see effort.
  - Firm then chooses price to charge agent.
  - Assume high effort is socially optimal: $v_H - c_H > v_L - c_L$
- What happens in one-shot game?
- Repeated game with discount rate δ
  - Suppose customers use "grim trigger" punishment: Pay up to v_H if never cheated; only pay v_L if ever cheated before
- High effort sustainable if firm patient (i.e. δ high):

$$\frac{1}{1-\delta}(v_H - c_H) \geq (v_H - c_L) + \frac{\delta}{1-\delta}(v_L - c_L)$$

Punishment schemes

- Is punishment severe enough to deter defection?
- Is punishment credible? Subgame perfect? Renegotiation proof?
  - Is punishment optimal after defection?
  - Credible not to renegotiate?
- When to punish?
  - Is deviation deliberate or by mistake?
- How do you recover from mistakes?

Cooperation harder to enforce when:

- Harder to detect defection (e.g. more randomness)
- Longer to detect defection (e.g. time to review)
- Harder to coordinate punishment (e.g. diffuse community)
- Higher benefits from defection (e.g. high value goods)
- Demand high (e.g. selling Wii's before Christmas)
- Firm is less patient (e.g. firm is failing)
- Re-entry is easy
- Ambiguity about what is acceptable behavior

Eliciting Feedback

Coming Soon
In theaters December 14.

Get Showtimes | Watch Trailer »

The Hobbit: An Unexpected Journey (2012)

7

Adventure | Fantasy - 14 December 2012 (USA)

Your rating: ★★★★★★★★★★ -/10

9.3

Ratings: **9.3**/10 from 4,437 users

Reviews: write review

A curious Hobbit, Bilbo Baggins, journeys to the Lonely Mountain with a vigorous group of Dwarves to reclaim a treasure stolen from them by the dragon Smaug.

Director: Peter Jackson

Writers: Fran Walsh (screenplay), Philippa Boyens (screenplay), and 3 more credits »

Stars: Martin Freeman, Ian McKellen and Richard Armitage | See full cast and crew

Designing Reputation Mechanisms

- What type of information should be solicited?
  - Positive/negative (Rotten Tomatoes), ratings out of 5 (Yelp), detailed surveys (eBay), freeform (Yelp)
- How encourage participation
  - Pay for feedback (Angie's List), prestige (Yelp), Matching (Netflix)
- How obtain high quality reviews?
  - Review the review (Yelp), or review the reviewer (Amazon).
- How prevent strategic manipulation?
  - Cross-check reviews, Use robust statistics
- How is information aggregated?
  - Weight more recent higher? Weight reviews by rating?
- Punishing bad behavior
  - Make re-entry harder, reduce time until reviews posted

The Trust Business

The Trust Business

- For many firms their reputation is most important asset
  - Financial firms (banks, life insurance, market makers)
  - Experience goods (Intel, Odwalla, Toyota)
- Banks
  - Banks invest money in long-term projects (e.g. mortgages)
  - If people believe bank will fail, this causes bank run
  - Failure becomes self-fulfilling
- Intel
  - In 1994 covered up Pentium bug
  - Refused to replace when discovered
- Odwalla
  - E. coli outbreak in 1996, led 66 people to become sick
  - Recall cost $6.5m (revenue $59m) and started to pasteurize

Enron

- Market cap of $60bn at end of 2000
  - Hid $8bn of debts and went bankrupt by end of 2001
  - Why aren't profitable parts of Enron still in business?
- Enron's Business
  - Long-term contracts for natural gas (and chemicals, metal etc)
  - Enron acted as middleman - party to every transaction
  - Every trader has credit exposure to Enron
- What happened?
  - At start of scandal Enron started to look shaky
  - Bid-Ask spread widened because of credit risk
  - Enron‘s profits fell, further increasing credit risk
- Lesson: loss of trust cannot be contained
  - It can spill into all aspects of firm's operations