

# Reputation, Trust and Recommender Systems

15.575

Tanu Ghosh

4<sup>th</sup> March 2004

# Agenda

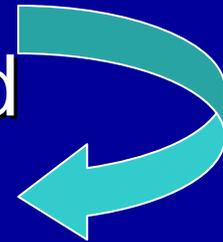
- Overview
- eBay executives
- Resnick and Zeckhauser
- Dellarocas (Word of Mouth)
- Break
- Chris Dellarocas

# Problems with online transactions

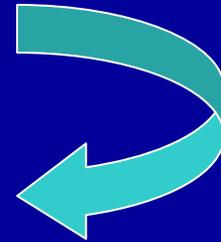
- Adverse selection
  - Do I really want to buy this good? What type does this party/good belong to?
- Moral hazard
  - Will my partner change his behavior once we enter the transaction?

# Tailor-made recommender systems

I want to know what books to read



What are some of the books you like?



Here are some that you may like

Book search example via: <http://www.amazon.com/>  
(Screenshot removed.)



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## Movies : Your Recommendations

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### These are your Movie Recommendations!!

**You have 193 recommendations!** - These recommendations are generated just for you based on your previous ratings! If you have seen any of these titles, choose the "Rate your Movies Recommendations" link and enter your rating! More ratings will help generate even more accurate recommendations!

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Title	Actor	Year	More info <small>BARNES &amp; NOBLE</small>	Category	Predicted For You	Choose Your Rating
★  Desperate Hours	Bogart, Humphrey - March, Fredric	1955	( <a href="#">more info</a> )	Drama, Suspense/Thriller	9.8	N/A
★  Shawshank Redemption, The	Robbins, Tim - Freeman, Morgan	1994	( <a href="#">more info</a> )	Drama	9.7	N/A
★  Primal Fear	Gere, Richard - Linney, Laura	1996	( <a href="#">more info</a> )	Drama, Suspense/Thriller	9.6	N/A
★  Silence of the Lambs, The	Foster, Jodie - Hopkins, Anthony - Glenn, Scott	1991	( <a href="#">more info</a> )	Horror, Suspense/Thriller, Crime/Gangster	9.6	N/A
★  Stand By Me	Phoenix, River - Wheaton, Will - O'Connell, Jerry - Feldman, Corey	1986	( <a href="#">more info</a> )	Action/Adventure, Drama	9.5	N/A
★  Raiders of the Lost Ark	Ford, Harrison - Allen, Karen	1981	( <a href="#">more info</a> )	Action/Adventure, Sci-Fi/Fantasy	9.5	N/A
★  Roman Holiday	Peck, Gregory - Hepburn, Audrey	1953	( <a href="#">more info</a> )	Classic, Romance	9.5	N/A

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# Generic recommendation systems

- Expert
- Community
- Hybrid

Removed: screenshot of powershot A70 from <http://www.epinions.com/>

Removed: screenshot of Acer Travelmate, user opinions tab, from <http://www.cnet.com/>

Removed: screenshot of Acer Travelmate, overview tab, from <http://www.cnet.com/>

# Some issues with these systems

- Privacy
- Algorithmic
- How many times do you really use these systems and can these ever replace the role of a friend's recommendations?

Other questions..

How can we prevent free riding?



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**Name**

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**Yvonne**  
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I can answer questions on most of Marilyn`s life, particularly her early years and the late fifties/early sixties. I have read a great deal on the conspiracy theories concerning her death.

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**Hollywood Insider:** [Yvonne](#)

**Expertise:** I can answer questions on most of Marilyn's life, particularly her early years and the late fifties/early sixties. I have read a great deal on the conspiracy theories concerning her death.

**Life Experience**

**Experience in the area**  
I have been a fan of Marilyn Monroe's for over ten years now, and have accumulated a sizeable collection of books and documentaries on her.

**Organizations belong to**  
I belong to three different Marilyn internet groups.

**Education/Credentials**  
I have degrees in Modern History and English. In the latter subject I studied film theory and completed my exam essay on Marilyn Monroe (movie screen as mirror) gaining a first.

<b>Prestige</b>		Max Number of Questions to be Asked (in 24 Hour period)	5			
<b>General Prestige</b>	170	Total Number of Questions (since joining AllExperts)	18			
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<b>Clarity of Response</b>	9.5 Best of the best	8	9	8	10	05/20/03
<b>Timeliness</b>	9 Excellent	10	10	10	10	05/20/03
<b>Politeness</b>	10 Best of the best					
<b>Number Of Questions (in Past 24 Hours)</b>	0					

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Can volatile identities be  
restricted?

# Still more questions

- Why isn't there enough negative feedback?
- Do we want more negative feedback?
- What are some ways that you have seen (or tried??) to beat the system
- Some other innovative systems?
- Is there a way to aggregate ratings from the WWW to one centralized repository?
- What is the role of brands in the age of online reputation systems?

# The big Question...

- Why does this system still work??

Trust Among Strangers in Internet  
Transactions: Empirical Analysis of eBay's  
Reputation System by Resnick &  
Zeckhauser

# Surprising findings

- Large number of distinct buyer-seller combination
- Huge positive feedback, few negative comments
- Past performance significant in predicting present performance
- High initiation costs-not in terms of monetary entry fee but loss of reputation

# Questions...

- Shouldn't eBay have some entry costs to prevent volatile identities?
- Should eBay look for ways to increase the negative feedback?
- Should eBay give more prominence to negative feedback?
- What about value of a seller's transactions?
- Relationship between age and salability- is it trust or just better experience?

The Digitization of Word of Mouth:  
Promise and Challenges of Online  
Feedback Mechanisms by Chrysanthos  
Dellarocas

# Questions...

- What happens if historical events are reported truthfully but buyers feel that they aren't truthful?
- What happens if they are false but buyers feel that they are truthful?
- What are some good feedback mediators?
  - Should we have emphasize recent past?

*"Reputation systems are the worst way of building trust, except for all those other ways that have been tried from time to time."*

Churchill misquoted in Resnick et al. 2000