# Reputation Systems

Word of Mouth in the Digital Age

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# Agenda

- Introduction
- Overview
- Reputation systems in e-shops: Amazon.fr

# What is reputation?

### As defined by Ted Nadeau...

## What is Reputation?

... the general opinion (judgment)

(more technically, a social evaluation)

of (& by) the public (or a group or a person) toward an entity

(person, a group of people, or an organization or brand or object)

As **distinct & different** from the background (others)

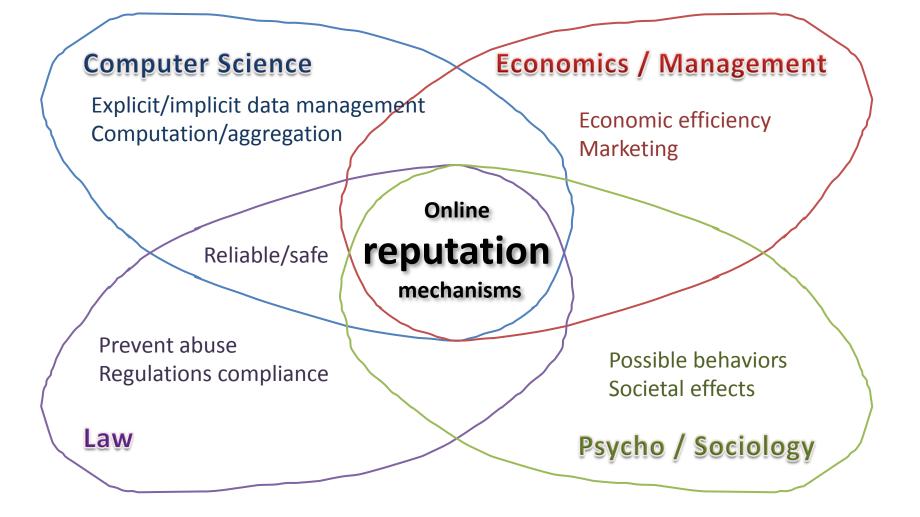
Concerning the **likelihood** of the entity

to behave in a certain way in the future

[under certain circumstances]

It is a ubiquitous, spontaneous and highly efficient mechanism of social control

# Multi disciplinary phenomenon



### We are not covering

- How to qualify dimensions
  - Number of grades?
  - What is a fast delivery?
- Remove identity anonymity through
  - Incentives
  - or technically (with cryptography)
- Abuse & bias
- Market of identities

### Attempt at classification

Auction e-Bay

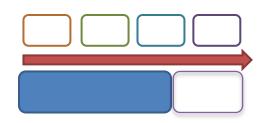
E-shop Amazon

Guide

Blog, forum, wiki

Social community (not reputation)

## **Implicit**



- Search engine
  - Google PageRank
- Good for bootstrapping
  - When no previous feedback is available
- Amazon
  - People who bought this book also bought...

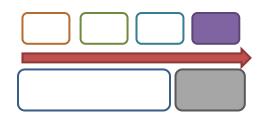


### Blog, Wiki, Forum

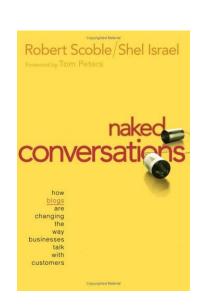


- No system
- Based on Author reputation
- "Blogosphere"
  - http://technorati.com/ attempts to make a ranking
- Wiki
  - http://www.mahalo.com/ (search)

### Blog Quiz?



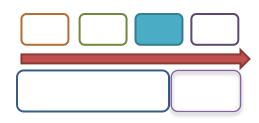
- What English technology blog do you know?
  - http://techcrunch.com/ (n°1)
  - http://gizmodo.com/ (n°2)
  - http://engadget.com/ (n°3)
  - on <a href="http://technorati.com/">http://technorati.com/</a>)
- Who is scobleizer.com?
  - Robert Scoble
  - > 3.5 million readers every year
  - Changed how Microsoft is perceived



### The Economist (15 feb 2005)

"He has become a minor celebrity among geeks worldwide, who read his blog religiously. Impressively, he has also succeeded where small armies of more conventional public-relations types have been failing abjectly for years: he has made Microsoft, with its history of monopolistic bullying, appear marginally but noticeably less evil to the outside world, and especially to the independent software developers that are his core audience"

### Guides



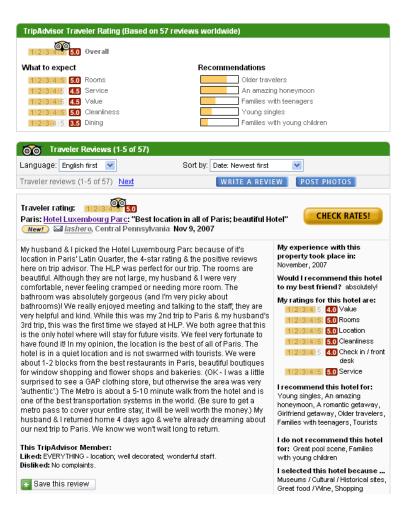
- Travel: <u>www.tripadvisor.com</u>
  - recommendations for hotels, travel packages, vacation packages, travel guides ,...
  - 5 million users 10 million honest reviews
  - Representatives of properties can respond to reviews. Responses are displayed directly underneath the relevant review.
  - Hotel Popularity Index
    - « The first index of its kind to dynamically rank hotels worldwide based on the popularity of a given hotel, as measured by both the quantity and quality of content written about the hotel on TripAdvisor and across the Web ».

### Restaurant / Nightlife:

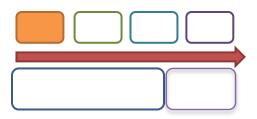
- www.zagat.com
- www.bonresto.ch

### www.tripadvisor.com

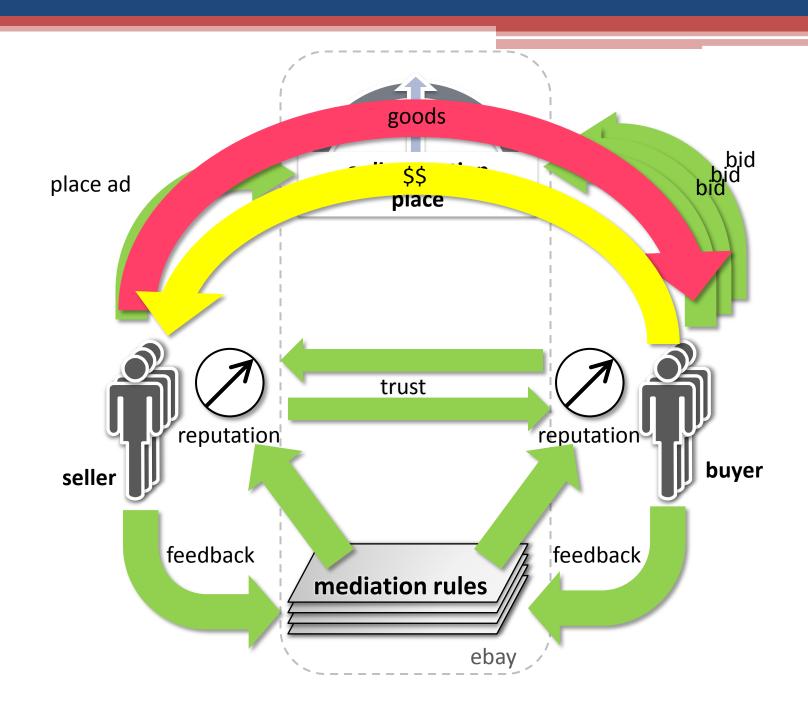


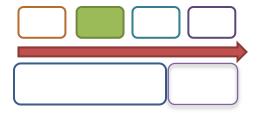


### Auction



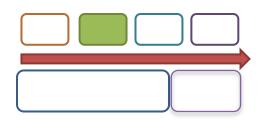
Reputation is a key enabler





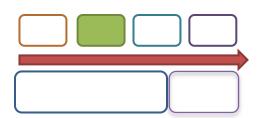


### Amazon.fr

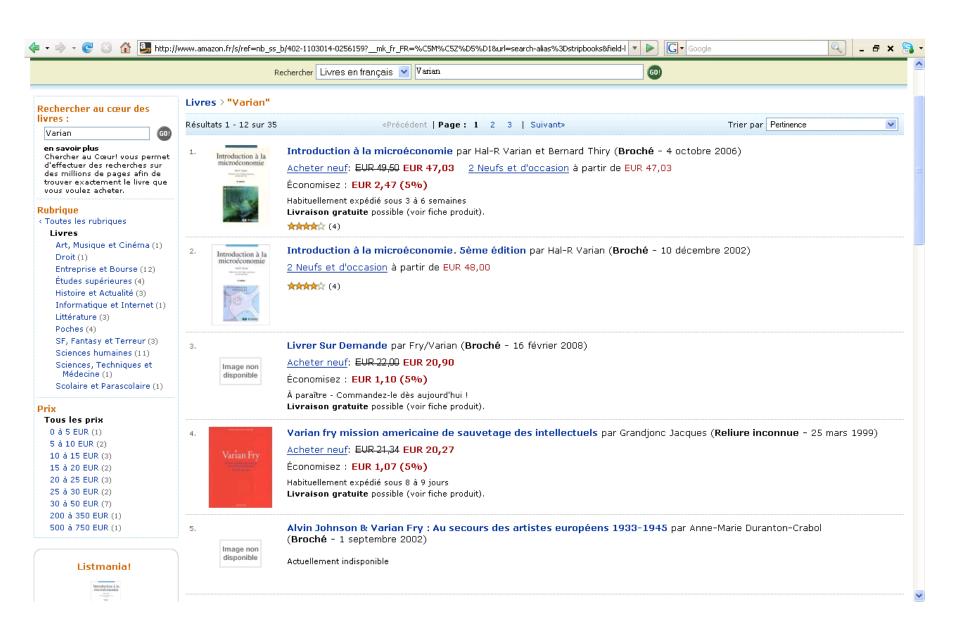


- On-line store
- Selling platform
  - can be used by other enterprises
  - in exchange of an annual fee
- Possibility of purchasing used or new products
- 2006 sales: 10,7 billion \$
- Growth of about 27% between 2005-2006

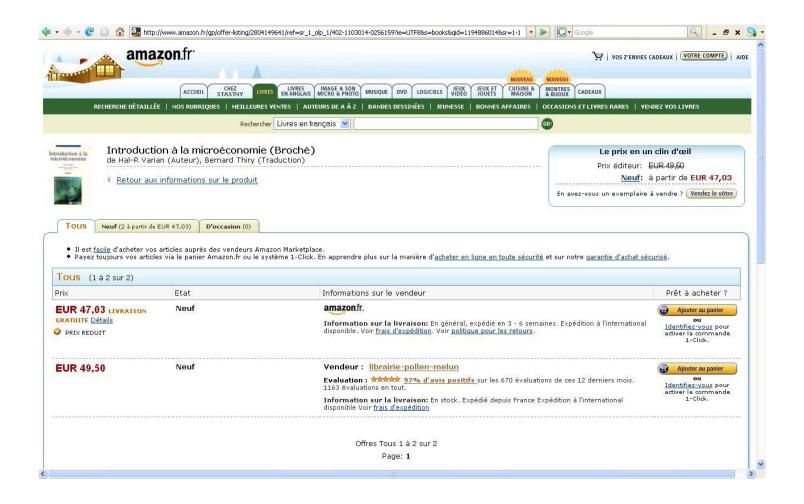
# Shopping experience on Amazon.fr



- Search for articles
- Access to:
  - products specifications,
  - comments
  - evaluations added by other users
  - sellers information
- Order
- Possibility to give a feedback on the seller
  - within 90 days after the date of the order



### Amazon.fr



### Reputation System of Amazon.fr

- Sellers can be evaluated by buyers
- For each product bought,
  - users can grade the seller's performance from 5 to 1
  - and add a comment
- Sellers can answer users feedback
- Display of the number of evaluations,
  - the percentage of +, neural and feedbacks
  - over the past 30/90/365 days and through lifetime
- Interestingly:
  - buyers cannot give a feedback on products bought directly through Amazon's store

### Reputation System Amazon.fr

### librairie-pollen-melun

Note moyenne: \*\*\*\*

4.8 étoiles au cours de ces 12 derniers mois (670 évaluations)

Evaluation	30 jours	90 jours	365 jours	Durée de vie
Positive:	95%	96%	97%	96%
Neutre:	2%	2%	1%	2%
Négative:	3%	2%	1%	2%
Décompte:	105	291	670	1163

#### Evaluation récente:

Voir toutes les évaluations

5 sur 5: "5/5 rapidité qualité"

Date: 2007/11/12 Evalué par l'acheteur : aquafolies

5 sur 5: "ENVOI RAPIDE, EMBALLAGE TRES CORRECT."

Date: 2007/11/12 Evalué par l'acheteur : GOISMIER V.

# Reputation System of Amazon.fr

5 sur 5:	"Parfait!" Date: 2007/10/30 Evalué par l'acheteur : chaosbc
1 sur 5:	"toujours pas reçu le livre !! comment ça se passe dans ces cas là ??"  Date: 2007/10/30 Evalué par l'acheteur : chantal d. <b>Réponse du Vendeur:</b> "Nous avons effectué le remboursement de votre commande dès le 10 octobre 2007, par ailleurs vous avez reçu un e-mail vous informant de ce remboursement. Aussi le commentaire de votre évaluation nous a t-il fort surpris." Date: 2007/11/3

### Amazon VS eBay case study

- Same sellers have poorer scores on Amazon than on eBay.
  - This is due to the bidirectional possibility to evaluate sellers and buyers on eBay.
- On eBay 60% of transactions result in feedback
  - while only 12% on Amazon
  - People on eBay want to increase their score
    - that's why they leave more feedbacks

### Amazon VS eBay case study

- Impact of feedback on demand and price:
  - eBay: Non significant
  - Amazon: 1% increase positive feedback
    - can generate up to 3000\$ more incomes over long-term

### Six degrees of reputation

- Amazon's structure of reputation management system (for books and CDs)
  - 1. Author's reputation and credentials.
  - 2. Editorial book review
  - 3. Expert-users (reviewers): free-form reviews, best-of lists, assigning rank
  - 4. Lay-users (readers): rate expert-users reviews (useful or not), report inappropriate content to Amazon's staff
  - 5. More visibility to reviews most useful and written by credible expert-user
  - 6. Reviewers's rank based on the amount of posted reviews and the usefulness of them

### Six degrees of reputation

- Higher levels of expertise are directly linked to participation.
- Things required to gain expertise:
  - Participation
  - Community positive evaluation: increase level of visibility.
    - Giving readers indications about expert-user, Amazon saves the users the effort to evaluate experts on their own
    - People participating in this system are a selfselected group

### Six degrees of reputation

- Online reviewing is becoming an activity to construct reviewers identity, not only evaluation of information's quality
- Why do people engage in online reviewing?
  - Hope to break into offline world of paid reviewing
  - Social practice empowering reviewer's self-estime and ego (often adolescents)

## The Way Forward

- Peer-to-peer networks
- Reputation Formation in Competitive Settings
- Usability Considerations
- Representations and Ontologies for Reputation
- Relationship between Online and Offline Reputation
- When is Reputation Bad
- Multi-cultural aspects of reputation mechanisms

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