Reputation Systems
Word of Mouth in the Digital Age

Boris Fritscher, Ulysse Rosselet, Mateo Ruggia, Tomas Stastny, Alessio Zolesi
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

**Computer Science**
- Explicit/implicit data management
- Computation/aggregation

**Economics / Management**
- Economic efficiency
- Marketing

**Law**
- Prevent abuse
- Regulations compliance

**Psycho / Sociology**
- Possible behaviors
- Societal effects

**Online reputation mechanisms**
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

Implicit, data
    Google, Amazon

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/](http://technorati.com/) attempts to make a ranking

- Wiki
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 http://technorati.com/)

• Who is scobleizer.com?
  ▫ Robert Scoble
  ▫ > 3.5 million readers every year
  ▫ Changed how Microsoft is perceived
“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:** [www.tripadvisor.com](http://www.tripadvisor.com)
  - 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](http://www.zagat.com)
  - [www.bonresto.ch](http://www.bonresto.ch)
Hotel Luxembourg Parc, Paris

Ranks #1 of 1,748 hotels in Paris in TripAdvisor’s popularity index

42 rue du Vaugirard
Paris 75005
France

Hotel photos

Hotel Luxembourg Parc, Paris

**Hotel Photos**

Hotel photos

Hotel photos

Hotel photos

TripAdvisor Traveler Rating

4.5 / 5 stars

Average price:

$490

23 reviews

Traveler Reviews:


Nov 7, 2007: "Absolutely stunning!"

Oct 31, 2007: "Timeless elegance among the modern"

Try rates! 

Four Seasons Hotel George V Paris, Paris

Ranks #2 of 1,748 hotels in Paris in TripAdvisor’s popularity index

31 Av George V
Paris 75008
France

Hotel photos

Hotel photos

Hotel photos

TripAdvisor Traveler Rating

4.5 / 5 stars

Average price:

$1389 (€952)

246 reviews

Traveler Reviews:

Nov 10, 2007: "Exceptional!"

Nov 9, 2007: "Absolutely charming hotel. We have even stayed!"

Nov 8, 2007: "Four Seasons Hotel George V Paris - Amazing Experience!"

Try rates!
Auction

- Reputation is a key enabler
place ad

seller

feedback

trust

reputation

goods

place

seller

mediation rules

feedback

buyer

ebay
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
1. **Introduction à la microéconomie** par Hal-R Varian et Bernard Thiry (Broché - 4 octobre 2006)
   - **Acheter neuf**: EUR 47,00 EUR 47,03
   - **2 Neufs et d'occasion** à partir de EUR 47,03
   - **Économisez** : EUR 2,17 (5%)
   - Habituellement expédié sous 3 à 5 semaines
   - Livraison gratuite possible (voir fiche produit).
   - ★★★★★ (4)

2. **Introduction à la microéconomie. Sûme édition** par Hal-R Varian (Broché - 10 décembre 2002)
   - **2 Neufs et d'occasion** à partir de EUR 48,00
   - ★★★★☆ (4)

3. **Livrer Sur Demande** par Fry/Vanjan (Broché - 16 février 2008)
   - **Acheter neuf**: EUR 22,00 EUR 20,90
   - **Économisez** : EUR 1,10 (5%)
   - A paraître - Commandezle dès aujourd'hui !
   - Livraison gratuite possible (voir fiche produit).

   - **Acheter neuf**: EUR 23,24 EUR 20,27
   - **Économisez** : EUR 1,07 (5%)
   - Habituellement expédié sous 4 à 9 jours
   - Livraison gratuite possible (voir fiche produit).

5. **Alvin Johnson & Varian Fry : Au secours des artistes européens 1933-1945** par Anne-Marie Duranton-Crabol (Broché - 1 septembre 2002)
   - Actuellement indisponible
Introduction à la microéconomie (Broché)
de Ha-R Varian (Auteur), Bernard Thierry (Traduction)

- Il est facile d'acheter vos articles auprès des vendeurs Amazon Marketplace.
- Payez toujours vos articles via le portail Amazon.fr ou le système 1-Click. En apprenant plus sur la manière d'acheter en ligne en toute sécurité et notre garantie d'achat sécurisé.

**Tous (1 à 2 sur 2)**

<table>
<thead>
<tr>
<th>Prix</th>
<th>État</th>
<th>Informations sur le vendeur</th>
<th>Prêt à acheter ?</th>
</tr>
</thead>
<tbody>
<tr>
<td>EUR 47,03</td>
<td>Neuf</td>
<td><strong>amazon.fr.</strong> Information sur la livraison: En général, expédié en 3 à 6 semaines. Expédition à l'international disponible. Voir frais d'expédition.</td>
<td>Neuf</td>
</tr>
</tbody>
</table>

| EUR 49,50 | Neuf | **librairie-pollen-malon.** Evaluation: ⭐⭐⭐⭐⭐ 97% d'évaluations positifs sur les 678 évaluations de ces 12 derniers mois. 1387 évaluations en tout. | Neuf |

Offres Tous 1 à 2 sur 2
Page: 1
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)

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>30 jours</th>
<th>90 jours</th>
<th>365 jours</th>
<th>Durée de vie</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>95%</td>
<td>96%</td>
<td>97%</td>
<td>96%</td>
</tr>
<tr>
<td>Neutre</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Négative</td>
<td>3%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Décompte</td>
<td>105</td>
<td>291</td>
<td>670</td>
<td>1163</td>
</tr>
</tbody>
</table>

Qu'est-ce que cela signifie ?

Evaluation récente:

5 sur 5: "5/5 rapidité qualité"
Date: 2007/11/12   Évalué par l'acheteur : aquafolies

5 sur 5: "ENVOI RAPIDE, EMBALLAGE TRES CORRECT."
Date: 2007/11/12   Évalué par l'acheteur : GOISMIER V.
### Reputation System of Amazon.fr

<table>
<thead>
<tr>
<th>Rating</th>
<th>Comment</th>
<th>Date</th>
<th>Reviewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 sur 5</td>
<td>&quot;Parfait!&quot;</td>
<td>2007/10/30</td>
<td>chaosbc</td>
</tr>
<tr>
<td>1 sur 5</td>
<td>&quot;toujours pas reçu le livre !! comment ça se passe dans ces cas là ??&quot;</td>
<td>2007/10/30</td>
<td>chantal d.</td>
</tr>
</tbody>
</table>

**Réponse du Vendeur:** "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
  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 self-selected 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
References


- Chrysanthos Dellarocas, Ming Fan, Charles A. Wood, *Self-Interest, Reciprocity, and Participation in Online Reputation Systems - Paper 205*, Center for eBusiness @ MIT, 2004

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- Paul Chwelos & Tirtha Dhar, *Differences in “Truthiness” across Online Reputation Mechanisms*, Sauder School of Business, 2007
  [http://www.sauder.ubc.ca/AM/Template.cfm?Section=Marketing1&Template=/CM/ContentDisplay.cfm&ContentID=16594](http://www.sauder.ubc.ca/AM/Template.cfm?Section=Marketing1&Template=/CM/ContentDisplay.cfm&ContentID=16594)

- Shay David & Trevor Pinch, *Six degrees of reputation: The use and abuse of Online review and recommendation systems*, First Monday, 2006


- www.amazon.fr