Privacy as a Competitive Advantage

Sören Preibusch
Agenda

1. Privacy Policy Negotiations
2. Design and Impact
3. Examples and Case Studies
4. Challenges and Perspectives
Static privacy policies ...
... do not serve customers optimally.
Static privacy policies ...
... are widespread.
Mismatch in corporate and regulatory practice

Privacy policy paradigms:
- take it or leave it
- one size fits all

Customers’ privacy preferences:
- dynamic
- diverse
Static privacy policies entail costs.

N = 72, 2008
Lost in transaction

2 in 3 offliners do not go online because of privacy concerns

1 in 3 onliners would buy more if not worried about privacy

1 in 4 onliners had abandoned shopping cart due to privacy

Teltzrow & Kobsa, 2004
Balancing between optional and mandatory fields.
ACCOUNT DETAILS

Please enter the details of the new user account you want to create below

User name
Valid chars are a-z, 0-9 or _. See here for important information. Min length 7/5 chars for guest/members, 4/3 chars for full/enhanced subscribers

Password
At least 6 but not more than 20 chars. Should be secure

Confirm password
To make sure we’ve got it right

Full name
Optional. Used in greetings and on outgoing email

Current email
Required for non-paying accounts. An email will be sent to this address that you must read to activate your account. Highly recommended otherwise. Used to send username/password if lost

Referrer
Optional. Username of person who referred you

Terms of service
I agree to the Terms of Service and the bulk email sending policy

Signup
Signup

FastMail.FM: Privacy starting at $4.95 per year
Willingness to pay

Grossklags & Acquisti:

*When 25 Cents is too much:*
*An Experiment on Willingness-To-Sell and Willingness-To-Protect Personal Information,*

WEIS 2007
Willingness to pay – revisited

The Pirate Bay, April 2009:

**IPREDator:**

5 Euro / month for file sharing without IP address recording

113,000 pre- registrations within 2 weeks
Privacy through choice of service alternatives

- FastMail.fm
- Yahoo! Mail
- newsletters

Axes:
- Privacy
- Price
Rewards for email address: €5 / 20% discount

Sign up and rake in the cash

- €5 / email address
- €10 p.a. / date of birth

boc24.de, hm.com
“Privacy vs. Personalisation”

- FastMail.fm
- Yahoo! Mail
- Google Mail

Axes:
- Price
- Product
- Privacy

Legend:
- Newsletters
Privacy negotiations make data protection part of the marketing mix.
consumers and service providers establish, maintain, and refine privacy policies as individualised agreements through the ongoing choice amongst service alternatives.
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Timing of data collection

- Pre-emptive
- Contextual
- Triggered
- Deferred
- Optional

Preibusch, 2009
Example: pre-emptive data collection

This page is secure and all your personal details are encrypted to keep them private. [Why it's safe to shop at Tesco.com](https://www.tesco.com).

Fields with an asterisk * are mandatory.

**Registration**

Just fill in your details and click the 'yes' button to register with Tesco.com. It's that easy!

1. **Name**

   **Title:** *  
   [Select]  
   **First name:**  
   **Initials:**  
   **Last name:** *

2. **Contact details**

   Please choose your address from the drop-down list below and enter two different telephone numbers (preferably one mobile) in case we need to contact you, for example if our delivery driver can't find your house.

   Please note that our grocery home delivery service is available for domestic household use only - we are unfortunately unable to handle bulk orders by commercial users or institutions. (See our Terms & Conditions)

   **Choose an address:** *  
   [Click the arrow to select your home ->]  
   **Daytime tel no:**  
   **Evening tel no:** *

   **Town/City:** Cambridge
Example: deferred data collection

Sign in or register to continue

Not an eBay member yet? Register here

Try us out and make your first purchase as a guest shopper.

Guest checkout

Join the millions of people who are already a part of the eBay family.

Register as an eBay Member and enjoy privileges including:

- Track the items you’re watching or bidding on
- Shop with confidence with PayPal Buyer Protection
- Connect with the eBay community and more.

Register
Example: contextual data collection

https://secure.johnlewis.com/
Example: triggered data collection
Anmelden (Schritt 2/3)


Ihre Angaben
- Titel
- Vor-, Nachname: Sören Preibusch
- Sie sind –
- Geburtstag
- E-Mail
- Telefon

Ihre Adresse
- Adressform: Privatanschrift
- Land: Deutschland
- Straße, Hausnr.: Kbrasser Damm 24
- Adressezusatz
- PLZ, Ort: 10827 Berlin

* Pflichtangabe

Ihr Vorteil: Sie erhalten von uns, quasi als vergünstigtes Geburtstagsgeschenk, einen 5-Euro-Gutschein zugestellt, den Sie sofort für ihren ersten Einladungsvorfall verwenden können.

Ja, mein Vorteil Nein, danke
Balloons generate higher data revelation ratios.

N = 72
In incentivised privacy negotiations ... transaction partners may additionally bundle the personal information collection and processing schemes with monetary or non-monetary rewards.
Privacy negotiations pay off.

100% higher  transaction completion rate

24% lower  price sensitivity

17% higher  average order value

N = 72 / 44 / 12
Well-designed privacy negotiations yield a positive business impact.
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The global picture

The data shows the highest ranking social network for each country by traffic, not by members, page views or any other metric.

Data was taken from Alexa.com on 16th Nov 2008

Alexa data comes from sites who have the Alexa toolbar as well as "data obtained from other, diverse traffic data sources" - Alexa.com

Countries in grey do not have data available and for a few countries it was difficult to identify local social networks and therefore were omitted from the map.

It’s not perfect so let me know of any errors or suggestions.

www.oxyweb.co.uk/blog

www.oxyweb.co.uk/blog

Central & Eastern Europe:
Methodology and Scope

- Survey of $N=45$ popular social networking sites
  - Snapshot as of February 2009
  - [http://preibusch.de/publ/privacy_jungle/](http://preibusch.de/publ/privacy_jungle/)

- **250+ criteria evaluated for each site**
  - General Site Characteristics
  - Privacy Claims
  - Privacy Controls
  - Privacy Policies

- Imputed scores for privacy and functionality
The bigger, the better

- Privacy score increases with
  - Alexa rank ($p = 0.02$)
  - user count ($p = 0.04$)
  - age of site ($p = 0.07$)

- P3P deployment more often on large sites ($p = 0.08$)
Privacy is Functionality, too

- More functionality: better privacy controls ($p < 0.01$)
- Niche sites: worse privacy controls ($p = 0.03$)
Growth is primary

It's the greatest place to meet... because it has more cool people than my local phonebook!

Find people you know here
Already 33,082,535 people on Badoo

33,082,535 people are on Badoo, 148,411 online now!
At Badoo your privacy is of paramount importance. As the custodians of your personal information, we have developed this policy to ensure that your privacy is always protected while you are using the Badoo network.

- Badoo’s privacy score: **0.23** (lowest in sample)

- Sites promoting privacy have less favourable practices ($p = 0.11$).
Act good and don’t make it known!

- The Privacy Communication Game:
  - avoid privacy awareness
  - address existing privacy concerns

- The Strategy:
  - hide any privacy notices from mainstream users
  - convince users who bother looking it up
  - dissimulate concerns, avoid criticism, discourage critics
Playing the Privacy Communication Game

- **Privacy seals:**
  - on main pages: 0 / 45
  - on privacy policy: 7 / 45

- **Promoting privacy:**
  - on main page: 4 + 3 / 45
  - on privacy policy: 34 / 45
Just do it.

Doing well on privacy pays off.

Mentioning it doesn’t.

N = 45 social networking sites worldwide; p=0.08; p=0.10
Positive privacy of friendship relations

John Jahn
Location: Germany
Hometown: Europe, Middle-East, S.E. Asia, from everywhere...
John’s URL:
http://profiles.friendster.com/2542629

Private Profile
[Restricted to John’s friends]
Messaging Off
[Restricted to John’s friends]

Who can view my full profile?:
- My Friends
- My Friends
- Two Degrees
- Three Degrees
- Selected Continents

Who can send me messages?:
- My Friends
- My Friends
- Two Degrees

Safe mode?:

Show My Birthday to Friends?:
- Yes
- No

Who can leave a comment?:
- Friends Only

Approve text comments automatically:
- Friends Only
Negative privacy of friendship relations

Telegraph.co.uk

Prison officer sacked after befriending criminals on Facebook
Friendship links are a double-edged sword.

Unilateral settings and the curse of enforced symmetry:

Socio-topological information is difficult to hide.

exposure ratio: 68% hiders have at least one friend
inference ratio: 97% of all friends inferable

N = 1,900 out of 120,000 users who hide their friends
Privacy choices on mobile devices

Preibusch, Beresford: Establishing Distributed Hidden Friendship Relations, SPW 2009
Privacy negotiations can be deployed subtly.
Protocol engineering

Preibusch, Beresford: Establishing Distributed Hidden Friendship Relations, SPW 2009
<table>
<thead>
<tr>
<th></th>
<th>Agenda</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Privacy Policy Negotiations</td>
</tr>
<tr>
<td>2</td>
<td>Design and Impact</td>
</tr>
<tr>
<td>3</td>
<td>Examples and Case Studies</td>
</tr>
<tr>
<td>4</td>
<td>Challenges and Perspectives</td>
</tr>
</tbody>
</table>
Privacy negotiations require engineering.

- incentive schemes
- user interfaces
- downstream data processes
Thank you very much.

Questions and comments are welcome and highly appreciated.

sdp36@cam.ac.uk – http://preibusch.de/