Personal data ecosystem

How is the handling of personal user data on the internet going to change?

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Personal data ecosystem

Research and experts discussion group Personal Data vs. Economy (September 2011)

- Participants
  - IT Security / Privacy (private sector)
  - IT Security / Privacy (public sector)
  - Corporate representatives
  - Research institutions
  - Critics and alternative opinion leaders
  - Digital Natives
Initial questions

Who has the **overall view and the sovereignty** on the users’ data?

“When are the social expectations on the security of privacy on the internet?”

„What do the basic principles in a culture of trust need to be like regarding the usage of user data on the internet?“

(following Henning Kagermann, President acatech, www.digital-zeitschrift.de, September 2011)

“Personal data is the new oil of the Internet and the new currency of the digital world.”

(Meglena Kuneva, European Consumer Commissioner, March 2009, webciety.de)
„Personal Data“

- Originally: barter economy, in which data is traded for services (e.g. stayfriends).
- Companies have understood how to earn money with data. (e.g. google, facebook: value based on user action and data)
- High asymmetry in power relations: Customers are not aware of the value of their data, instead they give it away willingly.
- Trend: „Data enlightenment“ (enlightenment of the user): „Why do we give data to services for free?“
„Personal Data“ – „Big Data“

- **Volunteered data**
  - created and *explicitly shared* by individuals, e.g., social network profiles.

- **Observed data**
  - captured by *recording the actions* of individuals, e.g., location data when using cell phones.

- **Inferred data**
  - data about individuals based on *analysis of volunteered or observed information*, e.g., credit scores.

source: World Economic Forum 2010
“...the analysis of the household’s electricity usage profile [...] does reveal what content was displayed on a CRT, a Plasma display TV or a LCD television set [...] two 5 minutes-chunks of consecutive viewing [...] is sufficient to identify the content (e.g. DVD movie).”
The 'Personal Data Ecosystem'

Key Stakeholders

- Individuals
- Private Sector
- Public Sector

Model Approach: The 'Personal Data Ecosystem'

Key Stakeholders

Generate about 70% of digital data
Different attitudes towards personal data
Become increasingly aware that they have no control over their data.
Discussion about use/abuse increasingly confuses consumers

source: following
Example: Health Care

E.g. Digital Care Support – TP Berlin
Mobile Technologies for the health & care-market: Support from people suffering from dementia

The particular location of a dementia patient can be determined precisely.

In the case of loss of orientation a readily understandable navigation home will be activated.

source: TP Berlin
Example: Health Care

E.g. Digital Care Support – TP Berlin

Protection / Orientation with „Geofencing“ – Definition of geographic areas.

Warning signal, when patients leave the perimeter; to the patients themselves or to the assisting nurses.

source: TP Berlin
Example: Health Care

Opportunities
- E.g. dementia patients: a high degree of mobility and independence for a longer time
- Reduction of costs, increase of well-being
- Sustainable reduction of stress for nursing relatives

Risks
- Discussion „electronic leash“
- Ethical Discussion

source: TP Berlin
Facebook: How safe is my data?

“Face to Facebook” – Action artists stole 1 million Facebook profiles, and used the information to start an online dating website.

Goal of this action: to show what you can do with these virtual identities because of their low security levels.

Awarded with the Prix Ars Electronica 2011

source: prix2011.aec.at
„The Internet will not forget.“
Google CEO Suggests You Change Your Name to Escape His Permanent Record

By Marshall Kirkpatrick / August 16, 2010 11:52 AM / 79 Comments

Google CEO Eric Schmidt has a great way of making public statements that are at once frank, unorthodox, thought provoking - and a little frightening. This weekend The Wall St. Journal ran an interview with Schmidt that offered tidbits like that on a wide range of topics. One statement in particular, that Schmidt thinks teenagers should be entitled to change their names upon reaching adulthood in order to separate themselves from the Google record of their youthful indiscretions, is something worth stopping to take note of.
What are people most worried about?

What are your biggest concerns regarding misuse of your personal data? What would be a worst case scenario?

- Identity theft
- Access to bank account/details
- Credit or bank card fraud (purchases, stealing money,...)
- Financial misuse/losses in general
- Misuse for committing crime
- Threats to the person or family (blackmail, kidnapping)
- Misuse/usage of personal data without knowledge
- Negative effects on oneself (reputation, credit worthiness)
- Spam, advertising calls and other unwanted contact
- Fraud in general
- Invasion of personal privacy/personal rights
- Being billed for goods never purchased
- Publication of personal data/access to personal data
- Theft/robbery in general
- Unauthorized transfer/sale of personal data to 3rd parties
- Hacking in general (passwords stolen)
- Pretended conclusion of a contract/opening account
- Monitoring/spying
- Others
- Don't know/no answer

Global (n=5562)

source: Nokia Siemens Networks Privacy survey 2009
Individuals (consumers): Questions

1. Is there a risk of dividing society?:
   “An elite, which knows how to protect itself and a bourgeoisie, which gives away its data because of ignorance and disinterest." (Zeit.de)

2. Does privacy not even exist anymore – „Post-Privacy?“:
   “Privacy was revoked by the internet and is no longer practicable. Now we have to see how we deal with it." (Spiegel.de)

3. Who does personal data belong to?
   Which rights do they possess?

4. Does it seem possible that consumers self-organize and find non-commercial alternatives for handling data (e.g. wikipedia, linux, diaspora)?
The 'Personal Data Ecosystem'

Key Stakeholders

Private companies use **personal data**
- to stimulate demand
- for additional profit
- to aim for new efficiencies

**Risik: Crossing the boarder of „fair use“**

Social Networks: Can the value per user be calculated?

Facebook
- estimate value $75 billion
- 845 million users worldwide
- estimate value per user: $89

source: technologyreview.com, July 2011
Private Sector: Questions

1. Does personal data become a primary currency of the digital economy?

2. Will its use as a means to create competitive advantage increase?

3. Will businesses engage in a “race to the bottom” to capture personal data?

4. What happens, if little regard is paid to the needs of other stakeholders?
The 'Personal Data Ecosystem'

Key Stakeholders

On the one hand, privacy and security, on the other hand, the promotion of the private sector

Use of personal data for their own purposes: e.g. health, education, law enforcement

Public Sector

Proposed EU data protection rules include right to be forgotten

The European Commission wants companies that fail to comply with the proposed rules to pay significant fines

By Jennifer Baker
January 25, 2012 07:29 AM ET

IDG News Service - A proposed new data-protection law for the European Union includes fines of up to 2% of global turnover for companies that breach the rules, E.U. Justice Commissioner Viviane Reding announced Wednesday.

Despite rumors that the figure would be 5%, Reding insisted the legislative proposals had not been watered down. "Five percent was not something in my pipeline," she said at a news conference to unveil the proposals.

Fines will be on a sliding scale: 0.5% of a company’s global turnover for charging a user for a data request, 1% if a firm refused to hand over data or failed to correct bad information and 2% for more serious violations.

Under the proposals, companies with more than 250 employees will have to appoint a data-protection officer to be responsible for compliance with the new rules, which include the controversial "right to be forgotten", allowing people to have data held about them deleted if there are no legitimate grounds for retaining it.

Reding insisted that "personal data belongs to the person" and that individuals have the right to take any information about them held by a company and move it to another company. They also have the right to insist that personal data be deleted, and companies must comply unless they can show legitimate grounds for retaining the data.

(source: computerworld.com)
“Cloud computing and increased use of the Internet will increase the focus on privacy and data protection.”

(Dirk Jan van den Berg, Delft University of Technology – source: wsj.com)

Eight of 10 Internet users want the government to take a more active role in protecting their privacy online.

(source: washingtonpost.com)
Public Sector: Questions

What is the role of the government in the development of a balanced ‘Personal Data Ecosystem’?

1. How do governments perceive empowered citizens?
2. How do governments react to accusations of ‘Big Brother’ control and manipulation?
3. Where can the state intervene – at national and at a global level?
4. How are cultural differences to be treated?
5. At which point do legal frameworks stifle value creation by overregulating?
6. How can governments participate actively – through their purchasing power, ongoing experiments of their own?

‘Personal Data Ecosystem’: End User-Centricity

Vision for the future

“Data account” – Greater control over personal data, compensation for providing own data

Enhance trust by facilitating information exchange and increasing transparency

Holistic approach to the issues of stability, security and privacy rights
'Personal Data Ecosystem': End User-Centricity

'Privacy-Preserving Marketplaces'

- De-identification of personal data?
- Compensation for providing own data, if appropriate, reimbursement for economic losses?

source: Latanya Sweeney, Carnegie Mellon University/ Data Privacy Lab
Current Discussion

- Personal data stores which leave the ownership of personal data in the hands of the individual.
- Organizations and governments that need data can request information via API calls.
- The individual knows what information is being used and for what purposes.

Solution to the issue:
“On the one hand you need the ability to access information. On the other, people expect information to be private.”
“Personal Data Eco-System” – e.g. Mydex

Mydex – “a social enterprise that is designing a platform where people can manage all the data they share with others”

David Alexander, director Mydex:

People need a “dashboard for their lives” – a “personal data eco-system” to allow people “to stand on an equal footing with government and big corporations”, when it comes to data sharing.

source: mydex.org
The open identity trust framework model: Roles

Policy makers decide the technical, operational and legal requirements for exchanges of identity information

The open identity trust framework model: Roles

Trust framework providers
- translate requirements into a trust framework.
- certify identity verification providers that provide identity management services
- recruits assessors

source: World Economic Forum, 2011
The open identity trust framework model: Roles

Identity providers (IdPs) issue, verify and maintain online credentials for an individual user. Relying parties accept these credentials.

- Contracts with the trust framework provider for implementing requirements set by policy makers.
- Other agreements potentially affected by requirements set by policy makers.

The open identity trust framework model: Roles

Assessors evaluate IdPs and relying parties

“Personal Data Eco-System“: Questions/Discussion

Are new business models imaginable, which base themselves on the responsible handling of user data?

Does it seem useful to install a trust center / marketplace, which protects my data from abuse and simultaneously represents my needs and interests?

How would one of these trustees have to look like (which would be a counterbalance to e.g. google), to awaken interest and acceptance? „Turn trade into business“

How reasonable would a user centered approach be with a focal point on transperency, trust, control and distribution of values?