Data Governance – Building Trust

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What are RFID tags?

- ➔ RFID tag is more than an invisible bar code!
  Allows ubiquitous data gathering - *remotely!*
- ➔ 3 types of RFID tags:
  - ➢ Battery Less (Passive – the most common),
  - ➢ Battery Assisted (Semi-Passive – improved reception),
  - ➢ Battery Powered (Active – with processing power)
- ➔ RFID is an enabling technology which
  has tremendous potential for societal uses
  (like Internet of today which *includes misuses!*)
- ➔ Problem: Whom to trust in "data mining"?

A common sense "Proportionality" is needed!

RFID data Governance

⮕ Problems with **data ownership and control**
- ➢ Data on the tags itself ⇨ who controls it?
- ➢ Back-end databases ⇨ who controls them?
- ➢ Difference between single user's data and the aggregate of all of the data?
- ➢ Legal jurisdiction ⇨ server location? Citizenship?
- ➢ Enterprise ⇨ data for economic activity
- ➢ Citizens ⇨ openness, transparency and safeguards?

⮕ Globalisation ⇨ global solution needed but needs to take into account EU / other regional cultural diversity

⮕ Data retention time-frame ⇨ How long is reasonable?

Potential data usages

➲ Recommender Systems (see ack. 2)
- ➢ Profiling for targeted adverts/recommendations

➲ Private Enterprises (closed RFID systems)
- ➢ Supply Chain / Product management
- ➢ Profiling for marketing of products + services

➲ Governments
- ➢ Public Interests such as security, health-care, …

➲ Consumers will consent if:
- ➢ *Richer life-style, personalisation, ease of data "control"*
- ➢ *trust in data mining entities and (legal) recourse*

Governance

- Who can be **trusted?**
  Government ➯ "Big Brother" scenarios ?
  Private Enterprise ➯ Profit motivations?
- Answer depends on cultural background
  - USA ➯ "Let market force decide"
  - Europe / Asia ➯ "Government as Caretaker/Protector"
  - Generational Gap ➯ Youth more comfortable
- No black or white magic answers!
  - Technologies are global (Internet and Internet of Things)
  - Trust & Privacy concepts are culturally diverse!
  - No Trust = No (global) business! Trust becomes the key!

One definition of Privacy

Privacy in the Anglo-Saxon world is commonly associated with the **right to be left alone;** i.e. "My Home is My Castle"

Legal search warrant needed to search a person's belongings.

However, what happens when data is held by others?

Who owns the data?

What jurisdiction applies?

Another definition of Privacy

➲ *In 1983* the German Federal Constitutional Court ruled that: "[...] *in the context of modern data processing, the protection of the individual against unlimited collection, storage, use and disclosure of his/her personal data is encompassed by* **the general personal rights of the individual to determine in principle the disclosure and use of his/her personal data**. *Limitations to this* **informational self-determination** *are allowed only in case of overriding public interest.*"
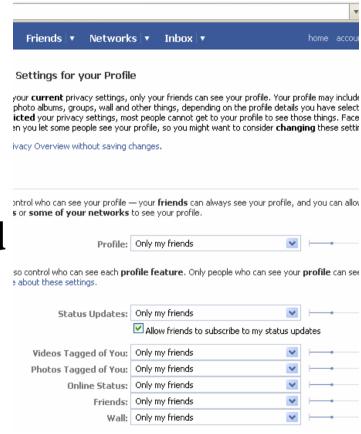
Informational self-determination

The right of the individual to decide what information about self should be:

➢**collected and communicated to others;**
                                    and

➢**under what circumstances**

Need for Standards

- ➲ Not restricted to RFID but all "data capture"

- ➲ Formal (ESO) standards for inclusiveness

- ➲ Standards for data usage and interoperability of different "closed systems" (personalisation)

- ➲ Standards for simpler, consistent and **transparent** data manipulation (by users also)

- ➲ Customer Trust = More business!

Today's Standards

➲ Today many closed systems (c.f. EPCglobal) and based on powerful business models on use of data

➲ Ad-hoc private approaches which are then "standardised"

➲ No "interoperability" between closed systems

➲ No customer empowerment as data owner is "master"

➲ Lack of transparency creates mistrust

Potential for:

➲ Formal Standards Bodies such as ESOs for transparency

➲ Naming / numbering in public domain (public good) (Intergovernmental UN agency like ITU for global buy-in?)

Conclusions

➲ RFID as an enabling technology will bring many societal benefits (just like Internet)

➲ Generational and cultural differences drive concerns for take-up of the usage (trust)

➲ Data Governance will be the key to general public's wide spread acceptance of RFID technology

➲ (ESO) Standards for personal informational self determination (on data capture and modification) across many consumer applications

➲ No new EU Legislation for the moment

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see: http://www.cs.ucl.ac.uk/staff/n.lathia
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➲ http://en.wikipedia.org/wiki/Informational_Self-Determination

Thank You!

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