

# Privacy Awareness

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**FIDIS Summer School**  
**01 – 07 Sept. 2008**  
**Masaryk University, Brno**

# Privacy Awareness – A Means to Solve the Privacy Paradox?

- **Privacy, Privacy Awareness**
- **Privacy Paradox**
- **Tools to Support Privacy Awareness**

## 'Privacy'

- **Various interpretations discussed in literature (e.g. Altman 1976, Newell 1995, Manny 2003, Clarke 2006)**
- **Privacy of personal sphere:**
  - **'Right to be let alone' (Warren, Brandeis 1890)**
  - **Privacy as solitude, non-intrusion**
  - **a) Secrecy of own thoughts, properties and actions**
  - **b) Minimal amount of data about others**
- **Privacy of personal data:**
  - **'Right to select what personal information about me is known to what people' (Westin 1967)**
  - **Information privacy**
  - **Active control of confidentiality of data against third parties**

## 'Privacy Awareness'

- **Privacy awareness of an individual encompasses**
  - **Whether others receive or have received personal information about her, her presence and activities**
  - **Which personal information others receive or have received in detail**
  - **How these information are or might be processed and used**
  - **What amount of information about presence and activities of others might reach and interrupt her**

## Dimensions of Privacy-Awareness Information

	User-independent	User-specific
Application-independent	<i>Talks, Tutorials, Campaigns</i> [1]	<i>Individual advice from privacy commissioner</i> [2]
Application-specific	<i>Privacy Disclaimers on Web sites</i> [3]	<i>Feedback from Web site's policy evaluation (e.g. Privacy Bird)</i> [4]

## Privacy Awareness and Behaviour

- **Objectives of privacy awareness**
  - Facilitate informed decisions
  - Reduce unintentional privacy-invasive behaviour
- **Assumption**
  - Users who state privacy concerns, thus can be regarded as privacy-aware, will act according to their statements and protect their privacy.
- **Results from several studies show**
  - Majority of users discloses a lot of personal information – regardless of attitudes stated previously
- **Discrepancy between attitude towards privacy and actual behaviour → Privacy Paradox**

## Reasons for Privacy Paradox and Proposal for Solution

- **Balancing of values**
  - $U(X) = \text{Benefits} - \text{Costs}$
- **Misconception of recipients of personal information**
  - Individuals 'forget' about quiet mass
- **Options to encounter privacy paradox**
  - a) Adapt individuals' attitudes
  - b) Adapt individuals' behaviour
- **Increase privacy awareness in specific situations in order to align behaviour with stated attitude**

## Tools to Support Privacy Awareness

- **Objective**
  - **Increase available privacy-relevant information**
- **Requirements**
  - **Measure user's privacy attitude**
  - **No invasion to privacy**
  - **Understandable for users**
  - **Tailored to concrete situations**
  - **Offer support, no assumption of responsibility**
  - **Performance**

## Opportunities and Limitations of Technical Solutions

- **Automated evaluation and matching of policies defined by the parties involved**
  - Show hints in case of mismatches
- **Reliability depends on calculations in the background**
  - Considers only stated policies instead of actual data collection and processing
- **Evaluate only technical processing of personal data**
  - Not all data ascertainable by metrics and policies
  - Workarounds, e.g. to copy data, even if technically not intended in the system
- **Ignorance or paranoia**

Thanks for your attention!