

Analyzing Users' Behaviour to Identify their Privacy Concerns



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Privacy concerns

- There is a lot of interest in **studying issues** related to privacy concerns that users have
- Privacy is in fact rather **difficult** to define
- **Multidimensional approaches** are needed to fully understand privacy issues
- Most studies of the issues related to Internet privacy have taken **a much simpler approach**
 - relying on various types of surveys

Surveys of attitudes and behaviour

- Survey-based studies have several **shortcomings**
- Surveys may lead to **inaccurate** or **unreliable findings**
 - e.g. high percentage of respondents to surveys claim that they read privacy policies when visiting website
- Only suitable for investigating issues related to a rather **narrow aspect of online privacy**
 - generally focusing on privacy of personal information
- Mainly deal with **privacy security**
 - e.g. identity theft, bank fraud, sale of personal information, etc.

Broader focus of privacy

- Studies of privacy issues have mainly been related to the use of Internet for **e-commerce**
- An increasing number of people are using the Internet to share **much more than personal information** with others
 - users share their personal photographs, video, and other multimedia content online
- Some attention has been given to the study of the privacy concerns of the users of **social networking sites**
 - focusing on **information revelation**: the type and amount of personal information people are prepared to share with others

Privacy of online multimedia collections

- Focus of our research is the privacy concerns of the users of **online multimedia collections**
 - specifically of personal photographs
- **Privacy issues** for photographs **are more complex** than those related to sharing of textual personal information
- Most studies concentrate on the data itself and **its ability to personally identify someone**
- We need to also understand how the information content of the **data is perceived by others**

Understanding behaviour

- Rather than focusing directly on those **privacy concerns** that can be **difficult to identify accurately**
- Our research has aimed to **better understand people's behaviour**
 - how they collect, use, and share multimedia collections
 - in the physical as well as the digital realms
- We believe that the **analysis of the users' behaviour** can assist us with better **understanding their privacy concerns**

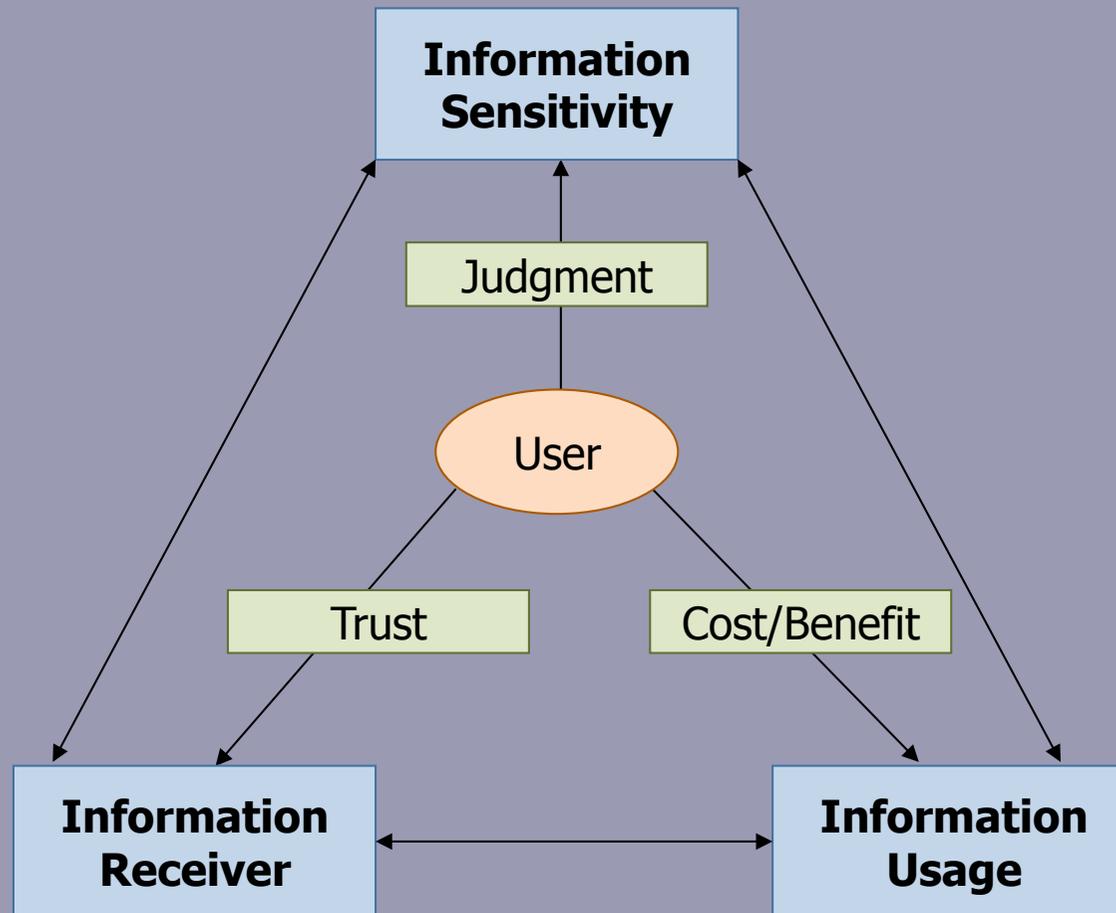
Methodology

- We used **ethnographic** and **auto-ethnographic** observation and interview techniques
 - to collect data on the behaviour of the owners of personal photograph collections
- Study participants examined and described
 - when and under what circumstances they take new photos
 - the ways in which they allow others to access their collection
- “**Sharing**” of a photo or collection was construed as broadly as possible

Methodology

- Ethnographic observations were guided by a series of **open-ended questions**
 1. when and where they take photos
 2. why they take photos
 3. what non-visual information they associate with their photos
 4. in what ways they share their photos with others
 5. what restrictions they place on the use of their photos
 6. who they share their photos with
- We used **grounded theory methods** to analyze the summaries of these ethnographic observations and interviews

Adams' privacy model



Conclusions

- **Surveys** can be effective at creating **broad-brush** pictures of privacy behaviours and concerns
- **Ethnographic techniques** can fill in **the details** with more complex privacy issues and more complex privacy-related attitudes
- Ethnographic methods may **miss out on** identifying privacy concerns that are perhaps **“too private”** to discuss
- We advocate the use of **surveys along with ethnographic methods**, and not necessarily either of them on their own