Master/Bachelor Thesis
Privacy Mental Models of Smart Homes

Telecooperation Lab

TECHNISCHE UNIVERSITÄT DARMSTADT

Motivation

In a Smart Home everyday objects are connected by information, communication and sensor technologies. To provide their services, Smart Home devices need access to a plethora of data about the users and their homes. To make an informed decision regarding their data, the users require information about the data processing and all entities that interact with it.

Abstract

(Prospective) Smart Home users require information to make informed privacy decisions. This information should consider the user's mental model of the Smart Home device, data flow and entities that can access the data. To gain this understanding, this thesis investigates the mental models of (prospective) Smart Home users.

Goals

- Qualitative study of mental models in the context of Smart Home privacy
- Possible explanation why user do not protect their privacy and why users cannot make informed privacy decisions
- Solutions to adjust the mental models, to provide the missing information or to adjust existing technologies to assist the user

Type

Analysis	■■■☐☐
Evaluation	■■■■☐
Implementation	■☐☐☐☐
Literature Research	■■■☐☐

Requirements

- High interest in conducting a user study
- Ideally lectures in IT-security and human-computer interaction