

# Chatbot Experiment

## User Background

- job
- age
- familiarity with smart home systems / bosch smart home system [none, used it a few times, using it regularly]
- familiarity with chatbots [none, used it a few times, using it regularly]

## Tasks

1. Ask the chatbot what it is for.
2. Try to find out the state of the TV. Is it on? How much energy does it consume?
3. Try to find out what the temperature is in the bedroom or what the temperature is set to (or both).
4. Ask the chatbot to give a summary of devices.
5. Use the chatbot to change the temperature in the bedroom.
6. Ask the chatbot to switch the state of the TV.

## Metrics

- Task completion time
- Attempts per task
- Task completed successful?

## Questions

- **Questionnaire (1 to 5 scale)**
  - The tasks were easy to accomplish.
  - The chatbot is easy to find and to use.
  - The chatbot enhances the usability of the app.
  - The chatbots responses were clear.
  - The chatbots responses were helpful.
  - The smart homes behavior after the chatbots responses was understandable.
  - I would use the chatbot if it was added to the official app.
- **Semi-structured Interview**
  - Were there any points where you felt confused or frustrated? Why?
  - Are there tasks you would rather perform with the chatbot than traditionally?
  - Any points for improvement? (functionality, UI, ...)
  - Do you think additional functionality like asking about the rational behind the smart home or additional analyzing capabilities would enhance your understanding of your smart home? Would you use such functionality?

## Data Analysis:

- Quantitative analysis of task completion rates, time taken, and survey scores.
- Qualitative analysis interview responses.