

# Envisioning Future Challenges and Possibilities for Shape-Changing Interfaces through Speculative Scenarios

In this paper, we present **three speculative scenarios** that explore the future of living with shape-changing interfaces. Each scenario is concerned with one area of this potential future. Three areas, which originated in a workshop with 25 researchers, are considered: 1) shape as a service, 2) security and trust, and 3) personalization and materiality. Each scenario is critically reflected. We point to future challenges that the research community needs to address, so that shape-changing interfaces can successfully venture out, into people's homes and lives.

**On this poster, you will find Scenario 1: Shape as a Service.**

*John is having a dinner party for his colleagues tomorrow. Looking around the apartment, he is unsatisfied with how it looks. His pieces of furniture were cheap, he bought them rather for their price tag than for their aesthetics. John wants to impress his colleagues, so he grabs the phone and surveys the ShöpIT App store.*



*He finds a new design that he really likes, but when clicking it, he discovers that it isn't compatible with his 2nd generation couch.*

*Other designs, while compatible with his couch, are far too expensive for him to buy, so he opts for just renting them. 'Just \$1 per day, billed by the hour', says the advertisement. He subscribes to the new design and all of a sudden, his flat looks like a designer loft. He makes some adjustments to the shapes and starts preparing the food for his guests.*

*After a spectacular dinner with his colleagues, which lasted almost until midnight, John receives a notification. 'Your credit card has expired; your subscription will be cancelled by 23:59:59. Please, update your credentials to keep your subscription.' 'Jesus – that's only two minutes left!' – he rushes into the kitchen, where he last saw his wallet.*

*Everybody else is having a good time on the couch; the table is full of drinks and the spectacular dessert, which they kept for midnight. 'Less than a minute, come on... 5231...'*

*John's fingers jitter while entering the numbers of the new credit card he received a month ago, but with all the accounts to update, he completely forgot to update it in his ShöpIT account.*

*The clock rings midnight, the couch decompresses from a five-person corner sofa to a two-person couch: one of John's colleagues gets thrown on the ground; another colleague's hand is trapped underneath the armrest. From one second to the next, the table doubles its height while three chairs transform back into plant pots...*

**For the other scenarios and their critical reflections, please take a look at the paper.**