Enriching the autonomous *ritual* kitchen with embodied interactions

FUTURE COOKING WITH GAGGENAU

THE CONCEPT: SOUS

Sous, the cooking assistant designed in this thesis, responds to the following Design Goal "Gaggenau users should feel like Home Chefs when cooking in their kitchens". Feeling like a Home Chef involves being the leader of the (domestic) kitchen, feeling in control, exploring creative opportunities, and having a certain level of culinary knowledge. The design revolves around celebratory technologies based on principles of autonomy and embodied interactions, the theoretical background from this project. Sous is a wearable that allows Home Chefs to understand in depth the preparations being cooked by providing real-time feedback about doneness or sensory aspects, among other information. With this, the aim is that Home Chefs would enjoy more the cooking process while ensuring the best result for the dishes they cook. It is linked to an app that expands the functionalities of the wearable with a special focus on making the experience more personalized.

HOW IT WORKS

Context awareness:
Home Chef's position is tracked thanks to the communication between the wearable and the appliances

Determine preparations' doneness:
Appliances have embedded time and temperature sensors

Electronic eye & nose:
Embedded on the wearable, gas sensor and computer vision to sense preparations and translate their sensory state

Artificial Intelligence:
Artificial Intelligence is introduced to provide a personalised experience, by learning about the user's likings

DESIGN GUIDELINES

Principles to design sustainable Human-Agent collaborations based on preserving autonomy and introducing embodied interactions.

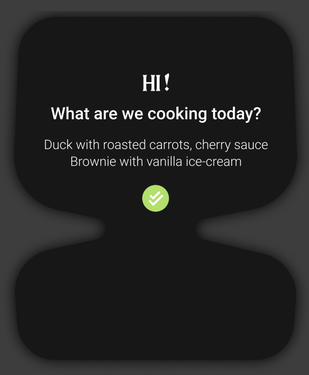
1. **Understand the Home Chef and the kitchen as collaborative partners.**
2. **Agents should be adapted to the domestic kitchen**
3. **Guarantee mutual intelligibility**
4. **Augment users capacities, maximize agents' capacities**
5. **Guarantee mutual trust according to task delegation**
6. **Flexibility in autonomy level and input type**
7. **Guarantee both entities' autonomy**
8. **Understand richness of human bodies' interactions**

CONTEXT

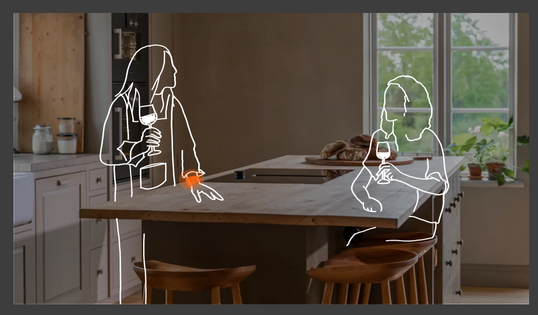
Sous is designed for fully equipped luxury kitchens, where Home Chefs love to cook and explore new culinary opportunities. Moreover, this space is the heart of the house, a social-hub where Home Chefs like to gather around their families or dining guests.

USE SCENARIO

The Home Chef and Sous conversate to define the shared-intention, the menu that will be cooked.



While cooking, Home Chefs can use the wearable to scan the food and get a deeper understanding of its sensory state.



The main dashboard shows the preparations overview by displaying their doneness and suggestions about steps or creative ideas.

Nuria Nicolau i Torra
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Committee Dr. Gijs Huisman
Dr. Nazli Cila

Company Piotr Szpryngwald (Gaggenau)

TU Delft

Faculty of Industrial Design Engineering

Delft University of Technology