Interaction Concepts for the upcoming connected kitchen

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BSH | Corporate Innovation

CIV-IA merges consumer needs

technical solutions

business models

idea

implementation
How do we interact with the upcoming connected kitchen?
“How do we interact with the upcoming connected kitchen?”
"How do we interact with the upcoming connected kitchen?"
How do we interact with the upcoming connected kitchen?
Kitchen of the Future | Trends

Social Kitchen

Flexible Use

Multi-Functionality

Connected Appliances
Fields of Interest are social and cultural trends which determine the users’ needs. The intelligent connected kitchen supports the user in performing the tasks.

1. Healthy Living
2. Inspiration and Improvisation
3. Simplification and Focus
4. Social Connection
5. Creative Control and Transparency
Fields of Interest | Healthy Living

- Nutritional information
- Dietary programs, food intolerances
- self-monitoring, self-control and responsibility/ guilt
- conscious consumption: sacrificing convenience for greater good
- Support for oneself and family
- …
Fields of Interest | Inspiration and Improvisation

- Inspiration through “in-the-moment suggestions”
- Simple ideas for cooking and eating
- Surprising Interplay of Home Elements/ Appliances
- Mistakes and Workarounds
- Ingredient replacement while cooking or running out of something
- Detection of mistakes while cooking/baking and suggest workarounds
- Based on what’s in your fridge or your cooking history
- …
Fields of Interest | Simplification and Focus

- Reduction of multitasking
- Reduction of visual/ cognitive overload
- Need for natural and simple interactions that notify the user
- Undistracted focus (also as a function of self improvement)
- Concentration on one task
- Kitchen must fulfil its numerous functions in a quick and effective way
Fields of Interest | Social Connection

- meaningful connection & intimacy
- collaboration for inspiration & motivation
- share our experiences at home with others
- feeling of being embedded into a social environment
- social responsibilities
Fields of Interest | Creative Control and Transparency

- not controlled by the digital world, staying in charge
- feedback and reassurance (control/transparency/notifications)
- supporting inhabitants to feel empowered and reassured to handle complexity and to see and feel personal choice and self-control.
- retaining self-efficacy (~ Selbstwirksamkeit)
User Needs | Context of Use Analysis

1. Understand
   - who are the users
   - what are their needs
   - what is the context
   - competitor review
   - formulate strategy

2. Diverge
   - envision
   - develop lots of solutions
   - ideate

3. Decide
   - choose the best idea
   - storyboard the idea

4. Prototype
   - build something quick and dirty to show to users
   - focus on usability not making it beautiful

5. Validate
   - show the prototype to real users outside the organisation
   - learn what doesn’t work
User Needs | Jobs, Journeys and the Customer Profile Map

**GAINS:**
- Desired results & outcomes
- Social gains
- Functional goals
- Positive emotions
- Cost savings

**PAINS:**
- Annoying
- Hindering from getting job done
- Undesired outcomes
- Problems
- Obstacles
- Risks
- Unfulfilled needs

**JOBS:**
- Task to perform
- Things to be done
- Problems to solve
- Needs to satisfy

Jobs can be clustered in Journeys.
Interaction | Characteristics of Future Intelligent Systems

1. Personalization
2. Context-Awareness
3. Autonomy
4. Adaptive Multi-Modal Interaction
5. Designed for Experience
6. Connected to Appliances
… personalized and individualized provision of services, information and products. “
… sensing and utilization of information such as time, location, device, identity, user, role, privilege level, activity, task, process and nearby devices/users.
“... independent planning, deciding and acting based on given situation and admission.”
“... the interaction with intelligent systems utilizes multiple human senses, the use case determines the interaction modality.”

Example today: BMW 7 In-Car Multimedia Control
... enhancing user satisfaction with a product by improving the usability, accessibility, and pleasure provided in the interaction with the product, addressing all aspects of a product or service as perceived by users.
“... being able to collect, exchange and utilize information with the appliances in the connected kitchen.”
Interaction | Where is the interaction and the intelligence?

Mobile | Integrated | Ubiquitous
Interaction Concepts for the upcoming connected kitchen

- Social Kitchen
- Flexible Use
- Multi-Functionality
- Connected Appliances

- Jobs/ Pains/ Gains

- Personalization
- Context-Awareness
- Autonomy
- Adaptive Multi-Modal Interaction
- Experience Design
- Connected to Appliances

- Healthy Living
- Inspiration and Improvisation
- Simplification and Focus
- Social Connection
- Creative Control and Transparency

... select one.
KUI | How do we interact with the upcoming connected kitchen?