

## *3.1.5 Analysing user research data*

# Analysing data



## Affinity sorting help identifying common themes in your research

# Create a wall of data

- Go through your notes or recordings and write post-it notes for each and every meaningful participant comment
  - Write in the users' voice - "I don't like package holidays because they're too expensive"
  - Write your own insights and questions in a different colour
- Writing all the relevant user comments by hand is the single best way to **get an real empathy for your users**
- After building the wall of data, **start grouping the post-its so that similar post-its are together.** Group by common **goals, behaviours, attitudes, activities**, etc.
- **Involve other people** in this analysis to check your assumptions

# Analysing data from user research

## Analyse:

- User outlook and perspective, their building blocks for a mental model
- Goals
- Behaviours
- Processes & tasks
- Social interactions
- Physical environment

....and distill into **personas, scenarios, lists of requirements etc**

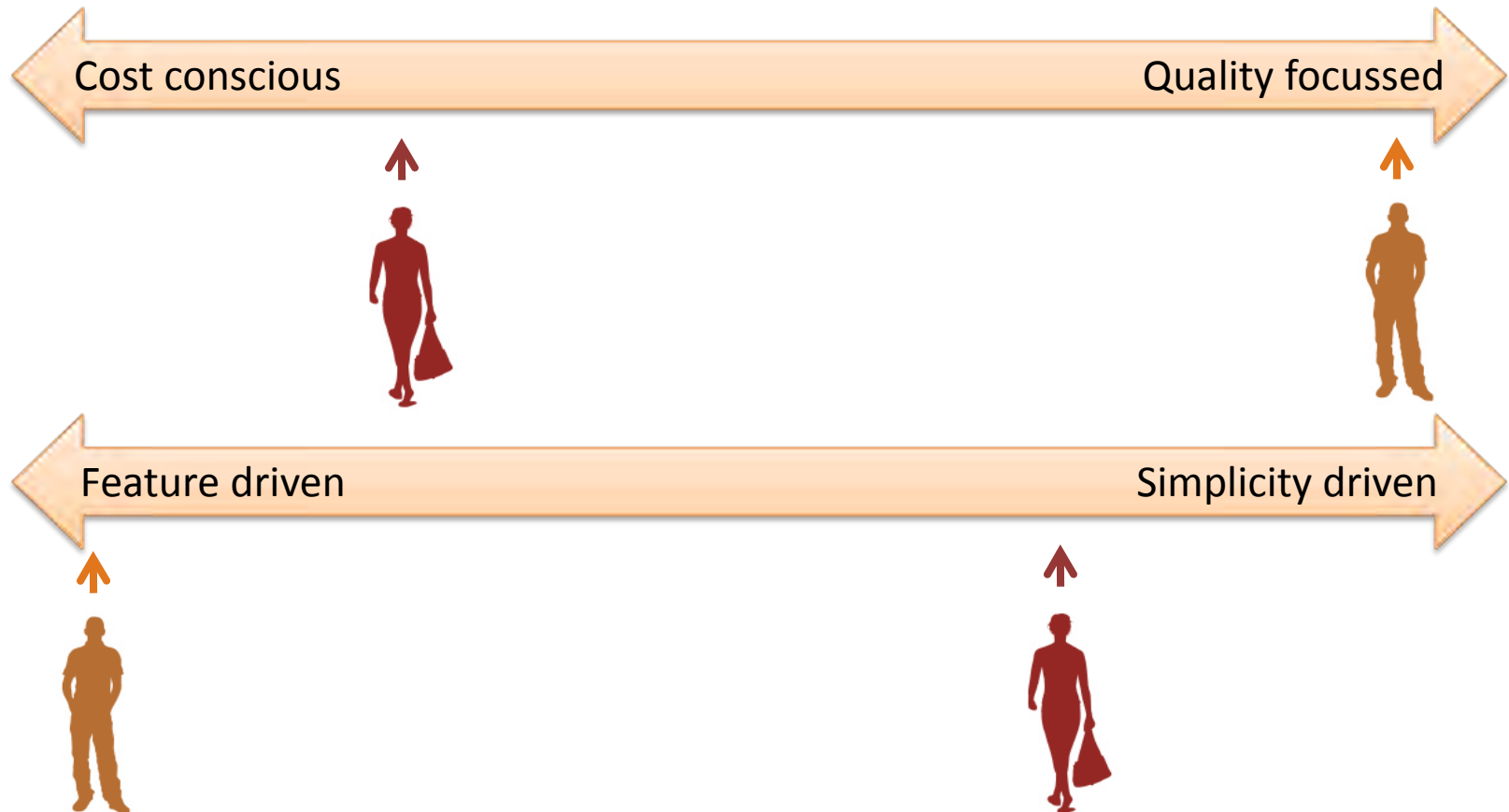
# Personas

- **Personas** are a way to **sum up user research** into archetypical **user representatives**, describing **goals, attitudes, motivations** and **key design challenges**
- They **merge many sources of data** into a format that drives **successful design**
- **Build consensus** about who the target users are and **avoid self-referential design**
- Allow to quickly **explore** or **validate design decisions**



# Personas – Behavioural variables

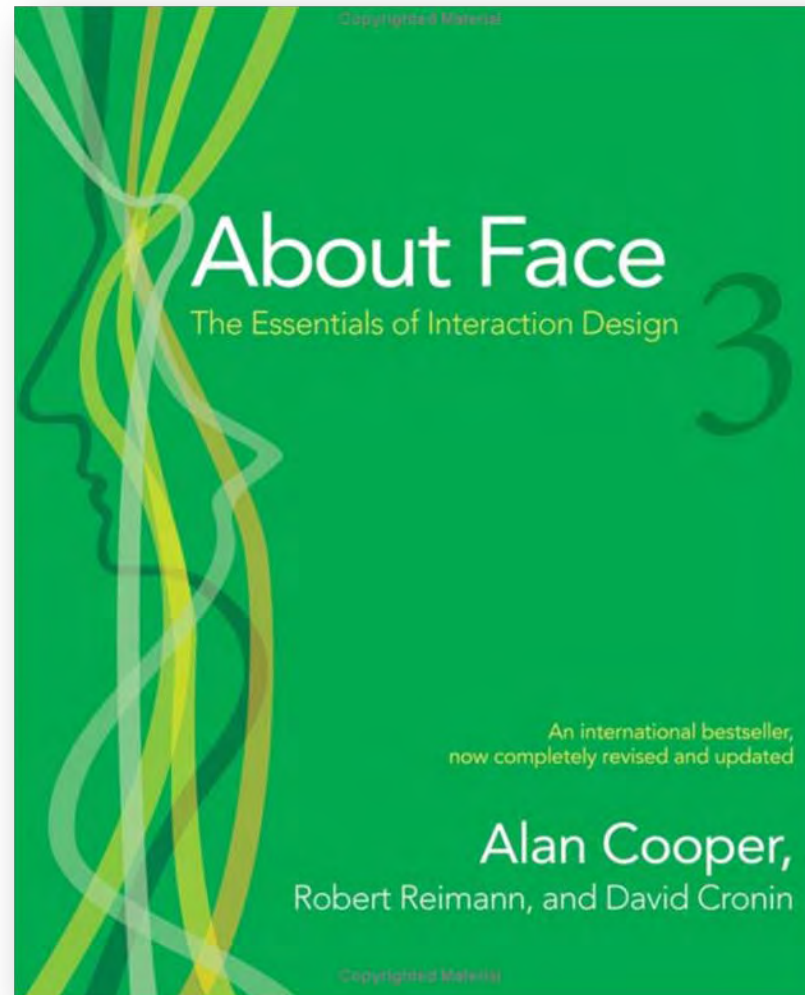
Map your personas to the behavioural variables identified in your research:



# Personas – Goals, attitudes and motivations

Define the goals of your personas based on your users research:

- **End goals:** What outcomes they want to achieve
- **Experience goals:** How users want to experience your product or service
- **Life goals:** What users want to achieve in their life
- **Attitudes,** what **motivates** and what **annoys** them
- How they **relate to the organisation**
- What makes them a **design challenge**
- **Their outlook in a single sentence or metaphor**





# Scenarios

**Scenarios are user stories** that describe the steps users go through to satisfy their goals:

- **Task scenarios** describe what users are doing currently
- **Use scenarios** describe how users will perform the same task using your product or service
- Task scenarios should contain information about **the user, his goals, actions, objects used** and **information needed**, set in **context**.
- Task scenarios help you to define functional requirements and to find gaps in the current offering

# Documenting scenarios

- Use scenarios are effective to describe system requirements in a way that keeps the user at the heart
- Choose the right way to document your stories. There are a number of options:
  - Narrative stories
  - Flow diagrams
  - Use Cases

# Gap analysis

Tom	Planning	Finding	Assessing	Adjusting	Comparing	About the hotel	Booking	Travel	Return
	Choosing a destination	Looking for hotels	Deciding which hotels to look at	Using ratings or filtering tools	Which of these hotels looks best	What is the hotel actually like	What else is needed to book	What to do when there	What happens when we get home
Tom wants a nice, affordable, family-friendly hotel in Palma for the last 2 weeks in August	He knows they should go to Palma on his sister's recommendation. Site shows Tom a couple of hotels that's found, and Tom tries to find somewhere that's nicer and cheaper. Tom has a specified budget - he works out how much it will cost to fly to places, so they know how much they can spend on the hotel. He'd still like to know if he can go anywhere else that could be a nice mix of city culture, and beach holiday.	Tom is trying to get an idea of the range in terms of quality and price to understand fully what he can expect to get for his money. He uses Google and enters 'Palma hotels' as well as going to hotel and travel websites to see what they have available.	Tom knows what he can afford so he's looking first at the price and then for quality and family friendliness. The total price would help him more than a nightly price. The photo, star rating, location and type of hotel (if available) all give him clues about the suitability of the hotel. He's trying to find somewhere that will be fun and safe for the kids, and has stuff to do for him and Helen.	Tom won't use the family-friendly filter straight away, he wants to see what's available and what a few places look like first, and will only use it if it looks like there's lots of hotels that are too expensive, or not family friendly enough.	Tom uses the map to see if hotels are as near the beach as they say they are.	Tom has a better idea of the hotel. He looks for more and larger photos and for reviews from families. He needs to know if the hotel neighbourhood is suitable for families. He also wants to know about local attractions and activities, specifically anything that the kids can do. He opens each hotel link in a new window, closing the ones that he doesn't like the look of. Tom uses Google when he can't find enough information.	Tom wants to be able to get connecting rooms, one with a double bed with a cot for baby Robin and one with two beds. The website says a cot is available, but it's not sure what ages it might be for, but thinks it should be okay.	Tom wants to be able to pre-book a few activities with the kids if he can get any discounts - it will help him budget more and gets his family excited about the holiday. He needs to phone the hotel to check about the cot that the website said it was available. The whole family get involved, searching Google for things to do when they're there.	They've already started thinking about a big three-week, fly-drive holiday in the States and Disneyland next year.

## What Tom might use



Mapping a persona's scenario against site functionality help identifying gaps in the functions and information offering

# Task analysis

**Task analysis** is the breakdown of **(complex) tasks into a sequence sub-tasks (actions)**. Pay attention to:

- Frequency
- Level of skill required
- Knowledge required
- Environment
- Safety
- Switching with other tasks
- Social context

**Task analysis allows you to:**

- Diagnose problems or inefficiencies
- Gather requirements

***Task: Create a persona for your project***

## ***Task: Create a persona for your project***

- 1. Create some behavioural dimensions** based on your research to date. If you don't have any, use your best guess (Worksheet 1)
- 2. Create a persona:** Goals, attitudes, motivations and some demographic data (Worksheet 2)

Under normal circumstances a persona should be based on thorough user research, but for today we can make some stuff up...

# Requirements

Based on the business requirements gathered and user research conducted, you should be able to start thinking about:

**Functional requirements:** What your product must do

- Specifications of the system's functionality
- Actions that the system must take (verbs)
- Not a quality e.g. 'fast'

**Non-functional requirements:** a quality your product must have (look and feel, usability, performance, operational, maintainability & portability, security, cultural & political, legal)

# Summary

## We talked about:

- The importance of **user mental models** in user experience
- The need to understand **business requirements**, organisational factors such as **stakeholders** and the **market**
- User research methods: **Contextual inquiry, lab interviews and diary studies**
- Ways of summarising this research: **Personas, Storyboards, Task analysis and Scenarios**
- **Types of requirements**