

Chapter 2 - User Requirements

- Stakeholders
- Obtaining information
 - Interviews
 - Questionnaires
 - Focus groups
 - Observations
- Personas & Scenarios

Recap

- Intuitiveness
- Mental models
- Action cycle
 - Gulf of execution
 - Gulf of evaluation



Requirements...



How the customer explained it



How the project leader understood it



How the engineer designed it



How the programmer wrote it



How the sales executive described it



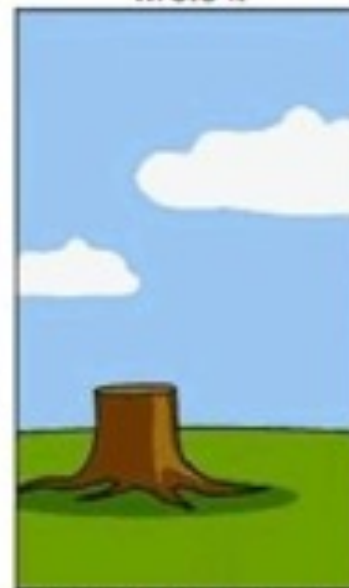
How the project was documented



What operations installed



How the customer was billed



How the helpdesk supported it



What the customer really needed



THE STANDISH GROUP

on User Experience

Ninety (90%) percent of CIOs agree that the user experience is the most important part of any mobile and Internet application project.

They feel no matter how technically successful projects are if the user experience is poor the project has failed.

They also agree that most of their applications get short changed in the area of improving the user experience.

In addition they feel that most PM and other staff do not have the skill to get the right feedback to create an exceptional user experience.

<http://blog.standishgroup.com/post/6>

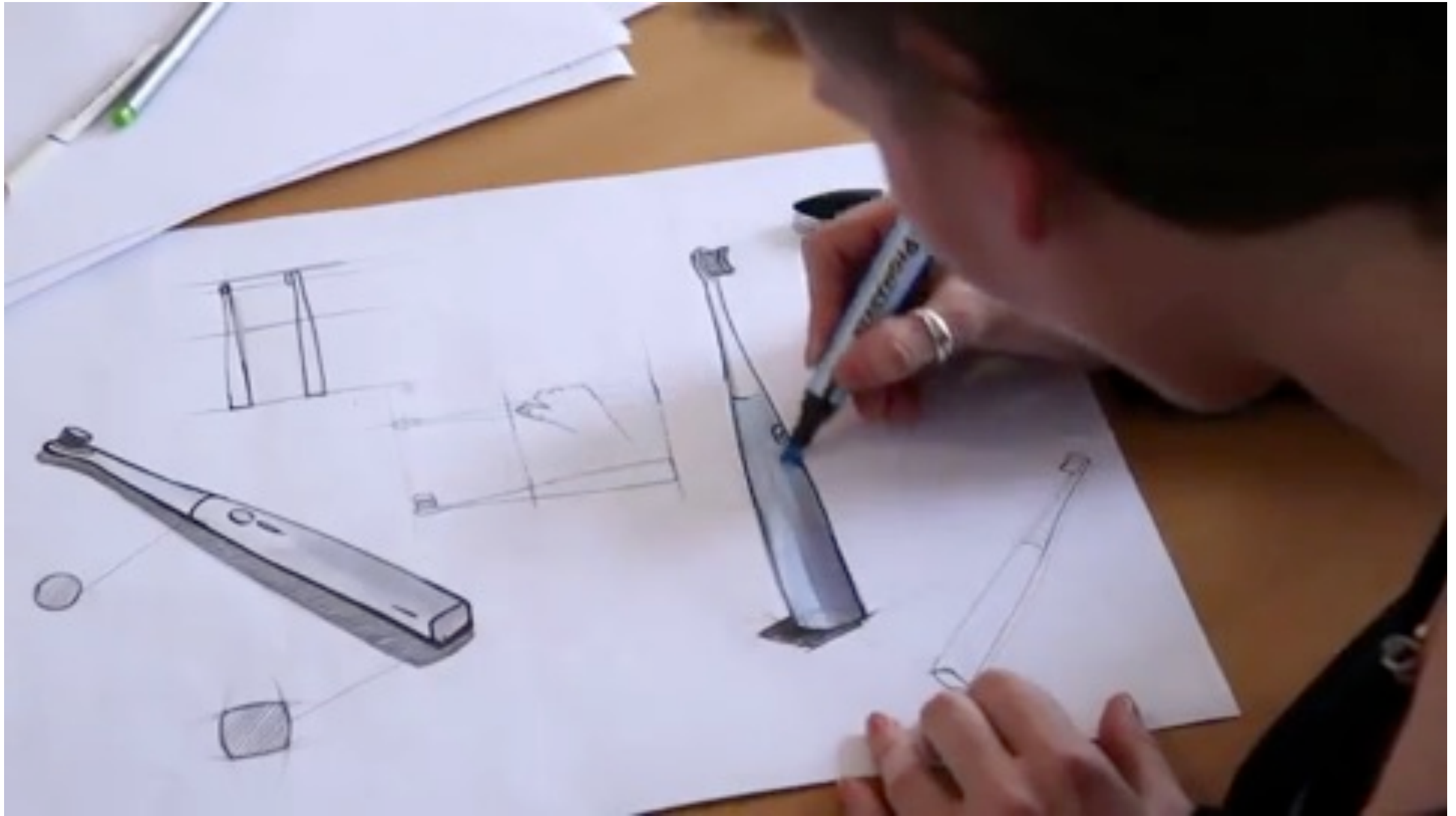
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<http://www.kolibree.com/>





<http://www.kolibree.com>

3



<http://www.kolibree.com/>



<http://www.earnestparenting.com/wp-content/uploads/2013/06/hambrush1-300x164.png>

2

1



http://www.kidzplanetpd.com/images/kid_toothbrush.jpg

Case Study – Group Work!

- Assume we want to develop a Web application to support incoming students of LMU's international Master programs.
- Which are the important aspects to be covered?
 - Produce a list of keywords
- Who are the stakeholders?
 - Produce a list of role names
 - Produce a list of ideal potential contact persons

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Un-Structured Interviews: Understanding



Structured Interviews



<http://levoleague-wordpress.s3.amazonaws.com/wp-content/uploads/2013/05/Answering-the-toughest-interview-question.jpg>

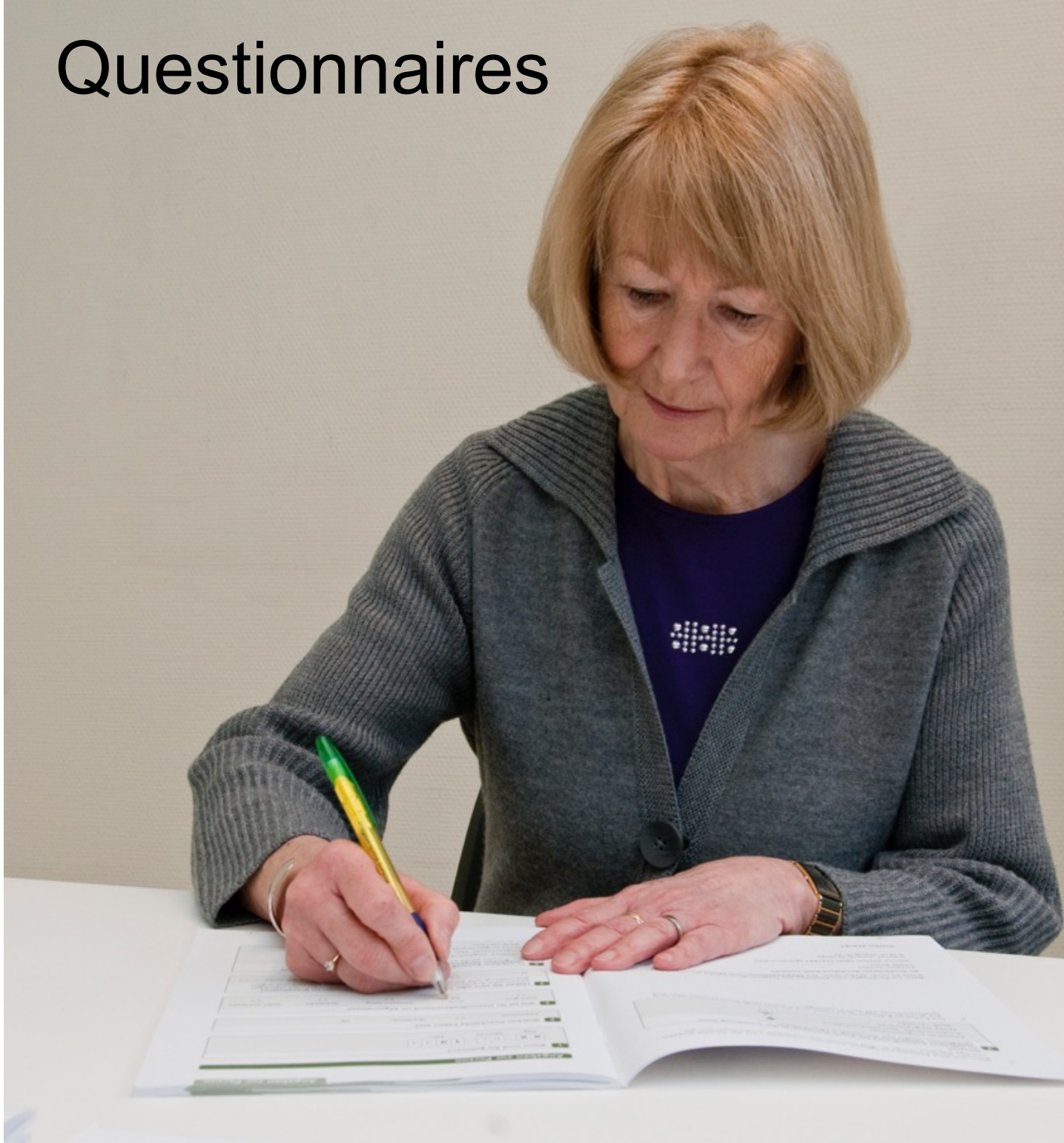
People to be Interviewed

- Stakeholders
- Subject matter experts
- Customers
- Users

Types of Interviews

- Unstructured, semi-structured, structured
- Single person, group
- Open, closed questions
- Specific techniques:
 - Contextual inquiry
 - Goal-oriented questions
 - System-oriented questions
 - Workflow-oriented questions
 - Attitude-oriented questions
- Avoid:
 - Discussing design and technologies
- Encourage:
 - Storytelling, show-and-tell

Questionnaires



Introduction:

- what is this about?
- anonymity and how this data will be used...
- voluntary participation, expected duration

Data about the interviewee (age, previous knowledge, ...)

simple (closed) questions

hard (closed) questions

open questions

Closure (various, ...)

Group Interviews: Focus Groups





User Observation



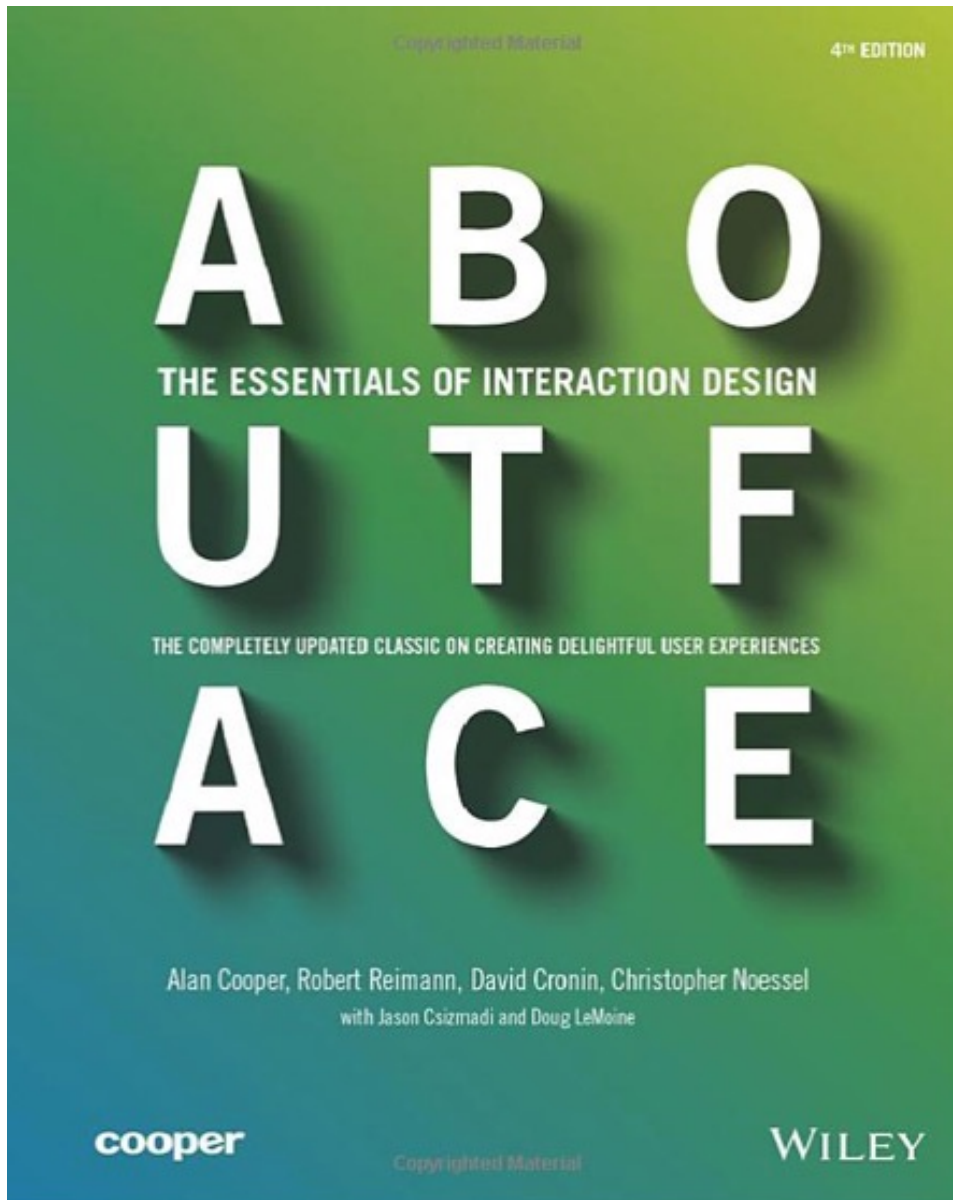
Case Study!

- How could we possibly find out about the actual needs of incoming LMU master students in getting online support?
- Which methods do we use?
- What is important?

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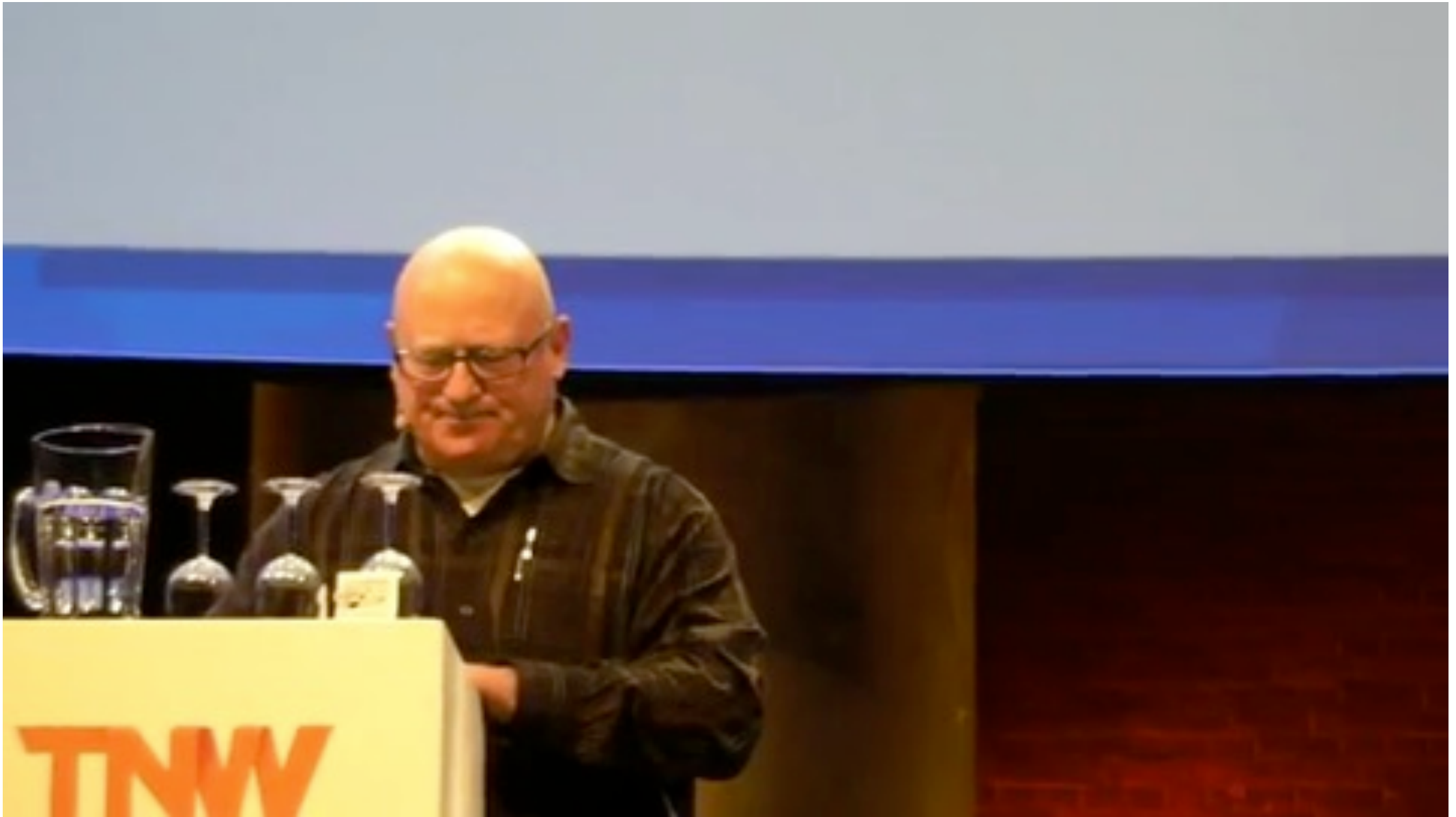
Alan Cooper



Source: Wikimedia Commons

Alan Cooper, Robert Reimann, David Cronin, Christopher Noessel:
About Face: The Essentials of Interaction Design,
4th Edition, John Wiley 2014

Alan Cooper on Digital Products



NextWeb 2012, <https://www.youtube.com/watch?v=wOB7zfkJ4Ww>

Example: Persona of a Storekeeper

Matthias is 35 years old, German citizen. He works as a chief storekeeper in the central storage of nile.com. Before that, he was a storekeeper at the Rhine mail-order firm for 10 years. He finished middle school and an apprenticeship as a railroad metal worker, but switched to the logistics industry because of the higher salaries there. He is married and has two kids of 12 and 9 years. Matthias loves computer games and spends part of his spare time with the newest games. For this purpose, he always keeps his PC up to date. For his children, he's bought the family game console „Wuu“, which he likes to use himself, too. Matthias is strongly short-sighted, but has excellent motor skills, because he's active in the local badminton club as a trainer and player. Since he doesn't speak any foreign languages, Matthias prefers to spend his holidays with his wife and kids in Germany, and rarely goes abroad. Matthias has very good relations to his colleagues, who think highly of him. He's generally skeptical about technological advances in his company.

Persona Examples



Alesandro's goals

- Go fast
- Have fun



Marge's goals

- Be safe
- Be comfortable



Dale's goals

- Haul big loads
- Be reliable



Figure 3-2: By designing different cars for different people with different specific goals, we can create designs that other people with needs similar to our target drivers also find satisfying. The same holds true for the design of digital products and software.

A. Cooper

Why Personas Are Useful



Figure 3-1: If you try to design an automobile that pleases every possible driver, you end up with a car with every possible feature that pleases nobody. Software today is too often designed to please too many users, resulting in low user satisfaction. Figure 3-2 provides an alternative approach.

A. Cooper

Avoiding the “Elastic User” phenomenon

Personas

- Personas are based on research
- Personas are represented as individual people
- Personas represent groups of users
- Personas explore ranges of behavior
- Personas must have motivations
- Personas can also represent non-users

Goals (for Personas)

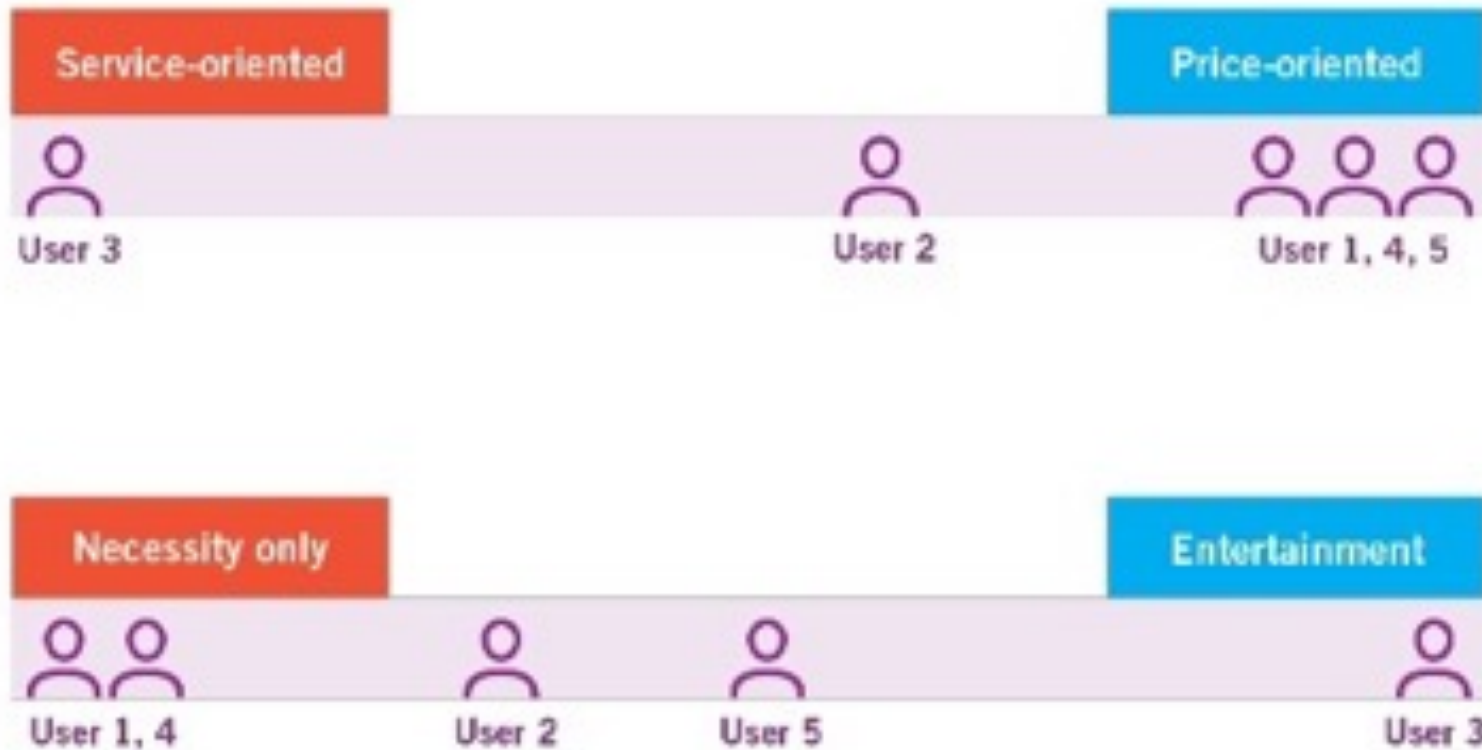
- Based on Norman's "Emotional Design"
- *Visceral* Level of Cognitive Processing:
 - Designing for Affect
 - Persona's *Experience Goals*
- *Behavioral* Level of Cognitive Processing:
 - Designing product behaviors that complement the user
 - Targeting behaviors, implicit assumptions, mental models
 - Persona's *End Goals*
- *Reflective* Level of Cognitive Processing
 - Designing iconic products with personal/cultural meaning
 - Persona's *Live Goals*

Constructing Personas

- Step 1: Group interview subjects by role
- Step 2: Identify behavioral variables
 - Activities
 - Attitudes
 - Aptitudes
 - Motivations
 - Skills
- Step 3: Map interview subjects to behavioral variables
- Step 4: Identify significant behavior patterns
- Step 5: Synthesize characteristics and relevant goals
- Step 6: Check for completeness and redundancy
- Step 7: Designate persona types
- Step 8: Expand description of attributes and behavior

Mapping subjects against variables can reveal patterns

Steps 3/4



Case Study!

- How many personas do we need to discuss about the requirements for our case study (incoming master support)?
- Which are examples for such personas?

Example: Scenario for a Novel VR Display

Matthias has ordered the new game glasses "miraculous reef" at nile.com, because his friends at the badminton club raved about it in the last training. He opens the package that the postman brought right away and checks its content. The glasses are lighter than he expected and can easily be adjusted to the shape of his head. He realizes that he can only use the device with contact lenses, since it can only compensate small debilities of sight and it can't be used with optical glasses. Connection to a computer only works after he has downloaded the newest drivers from the web page. Unluckily, his favorite game "blind craft" doesn't support the new glasses, and he has to cope with another game for testing them. Matthias is fascinated by the great field of view and he doesn't mind the slight nausea he feels after 15 minutes of usage. During the first game, Matthias suddenly feels someone slapping his shoulder. His youngest son also wants to try out the glasses. For this, Matthias has to adjust the headband. In the smallest setting, it just fits well enough to not slide down from his sons head.

Types of Scenarios

- Context scenario
 - Often called “day-in-the-life” scenario
- Key path scenario
 - Most significant user interactions
 - Vocabulary of the design
- Validation scenario
 - Test the design in a variety of situations

Requirements Definition Process



- Requirements are triples of
 - Action
 - Object
 - Context