Design Thinking and Electronic Prototyping

Week 8



Salu Ylirisku 27.10.2020

Project

Today (27.10.):

Use cases / user stories

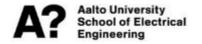
In 5 weeks (1.12):

Project Results with Prototype Demo



Quote from diaries

"I realised that it is so easy to forget about users, customers, people while designing something."



This is NOT an engineering course

...but <u>Design Thinking</u> and Electronic Prototyping!



What this means?

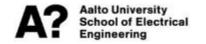
- Less technical ambition in construction
 and calculation
- More focus on
 - contextual study
 - conceptual understanding
 - communication



Project evaluation in the end is 1/3 based on your focus on <u>users</u>

- 1. Design Concept (**user** value)
- 2. Design Exploration (user study and user involvement)
- 3. Design Judgment (**user-based** criteria)

If you lose focus on the users, you won't get the full points!



Design Concept

- 1. Name & Visualisation
- 2. Purpose & Users
- 3. Key benefits (which problems solves / value adds)



Design Exploration

- 1. User study: Observations/Findings about users
- 2. Technology study: Observations/Findings about tech
- 3. Excess Ideas: Which ideas were considered but discarded



Design Judgment

- 1. Why do you think that your idea is a good one?
 - If it solves a problem is that problem really a meaningful one to be solved?
- 2. Why did you choose to prototype the specific functions and features?
- 3. Why did do the project activities in the order that you did?
- 4. Why did you discard certain ideas?



Grounding your design on userunderstanding/empathy

- 1. Who is your user? (Now pick just one!)
 - 1. What are their key characteristics / needs?
- 2. What is the situation?
 - 1. Time, context (psycho-social & physical setting)
- 3. What does the user want to do (goal)?
- 4. Action: What steps are there in the action?
 - 1. What happens first
 - 2. What happens second
 - 3. ...



This and the next week's tasks

1. Diary – Deadline on Monday 2.11. at 10 AM

2. Reading: End of Chapter 4, begin Chapter 5 until p. 141-170

- Knowing What to Do: Constraints, Discoverability, and Feedback
 - Constraints That Force the Desired Behavior
 - Conventions, Constraints, and Affordances
 - The Faucet: A Case History of Design
 - Using Sound as Signifiers
- Human Error? No, Bad Design
 - Understanding Why There Is Error,
 - Deliberate Violations

3. Project

- Weekly assistant meeting
- Continue building your prototype

