



24.10.16

# Designworkshop II

Review Research: Problem Framing & Use Case

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# Workshop Theme:

**BEYOND THE SCREEN**

In-car interaction concepts  
across soft- and hardware

With the rise of digitalization, **screens are widely replacing** knobs, buttons and other **haptic interaction methods.**



<http://www.digitaljournal.com/img/9/1/2/2/9/7/i/5/5/2/o/ajeepdashboard8.jpg>

<http://2.bp.blogspot.com/-C05lp2Ctv8c/UzqTdr1z0il/AAAAAAGBk/YG5VxARksA4/s1600/tesla-model-s-cockpit.png>

**In-/ output is reduced** to the size of the screen **while the complexity** of interaction possibilities/ information **has risen**.



Hauptmenü

15:42

tagessch...

Multimedia

Radio

Telefon

Navigation

Office

ConnectedDrive

Fahrzeuginfo

Einstellungen

**Emotional interaction experiences** (e.g. haptical) **are being uniformed** as the diversity of form and materials are **reduced to the one universal touch screen experience.**





# Workshop Theme:

- > What kind of new interactions concepts in the car can merge hard- and software?
- > How can they support ease of usability, the conveying of information and an emotional experience specifically for in-car interactions?

# Examples

**DANIEL ROZIN**

<http://www.smoothware.com/danny/>





# FAMILY OF THE ARTS

<http://www.familyofthearts.com>







**TATIANA PLAKHOVA**

<https://vimeo.com/130972302>



**TEMPESCOPE**

[www.tempescope.com](http://www.tempescope.com)





**TEAMLAB**

<http://www.team-lab.net/works/ffgarden>





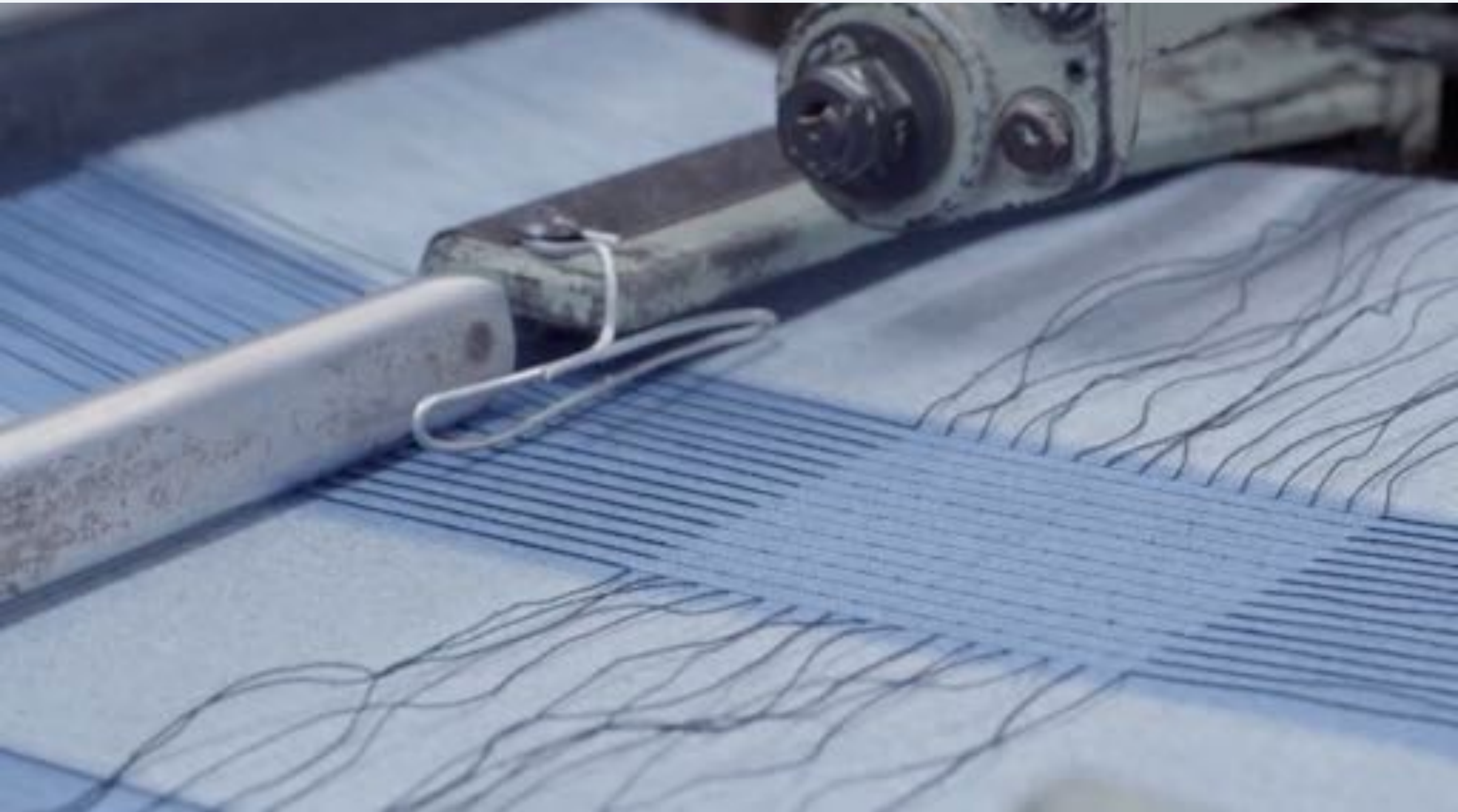
# GOOGLE SOLI

<https://www.wired.com/2015/05/google-atap-project-soli-gesture-technology/>



# GOOGLE JAQUARD

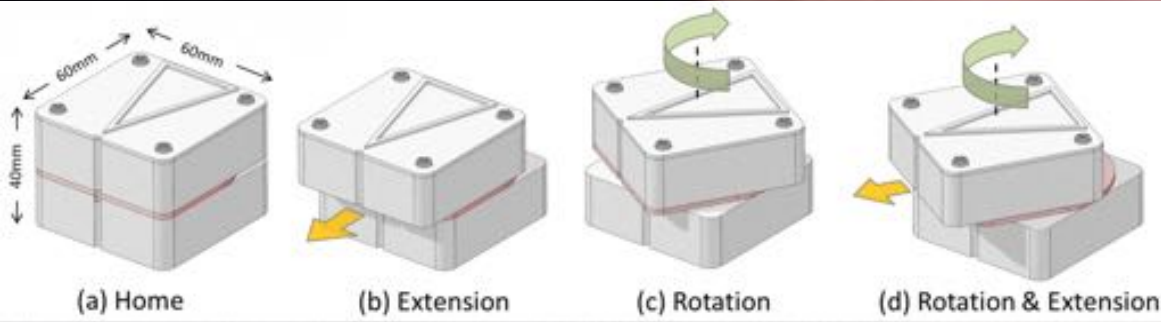
<https://www.youtube.com/watch?v=qObSFdfe7I>





# SHAPE SHIFTING NAVIGATION

<http://news.yale.edu/2015/08/26/shape-shifting-navigation-device-both-sighted-and-visually-impaired>



# FABIAN HEMMERT: SHAPE SHIFTING MOBILES

<http://www.fabianhemmert.com/projects/shape-changing-mobiles>





# Until 31.10.16

DELIVERABLE 1: 30 mins per group, PDF presentation

## - PROBLEM FRAMING

Describe the specific challenge you want to solve by using an exemplary use case based on your self-testing research with DriveNow/ BMW Museum.

What particular problem/ use case do you want to solve for in-car interactions? (e.g. navigation, entertainment, temperature/ air conditioning,...)

For whom? (e.g. driver, passenger, children, elderly, ...)

## - SUMMARY DESK RESEARCH

Interaction concepts & existing applications (mobility context and beyond)

e.g. that merge hard-/ software // that rethink in-/output mechanisms /// that try to increase the emotional experience

Structure your desk research (minimum 15 examples) into groups and give them each group a title describing the grouped examples' innovative approach to interaction design

# Milestones & Deliverables: Research

## Research & Problem Framing

24.10.16 Review Research: Problem Framing & Use Case

31.10.16 **Deliverable 1:** Problem Framing & Research Presentation

31/10 Problem Framing & Research Presentation

The diagram features a horizontal timeline with a light green bar. A blue vertical line with a red triangle at its base points to a callout box containing the text '31/10 Problem Framing & Research Presentation'. The timeline is labeled with the months 'October', 'November', 'Dezember', and 'January'.

October

November

Dezember

January

# Milestones & Deliverables: Concept

## Concept Development

07.11.16 Review Concept

14.11.16 Review Concept

21.11.16 **Deliverable 2:** Presentation Concept with Storyboard & Planning of Prototyping

21/11 Concept Presentation

October

November

Dezember

January





# Milestones & Deliverables: Low-Fi Prototyping

## Low-Fidelity Prototyping

28.11.16 First Draft Prototype & User Test Planning

05.12.16 Review Results User Testing & Concept Iteration

12.12.16 **Deliverable 3:** Low-Fidelity Prototype based on User Feedback

12/12 Low-Fi Prototype & User Testing

A horizontal timeline is shown with a light green bar. The months 'October', 'November', 'Dezember', and 'January' are labeled below the bar. Two red triangles mark specific dates: one at the end of November and one at the end of December. A blue vertical line connects the December triangle to a callout box containing the text '12/12 Low-Fi Prototype & User Testing'. An orange bar highlights the period from the end of November to the end of December.

October

November

Dezember

January

# Milestones & Deliverables: High-Fi Prototype

## High-Fidelity Prototyping & Presentation

- 19.12.16 Review High-Fidelity Prototype
- 09.01.17 Review High-Fidelity Prototype
- 16.01.17 High-Fidelity Prototype
- 23.01.17 Preparation Presentation
- 30.01.17 **Deliverable 4**: Final Presentation incl. High-Fidelity Prototype

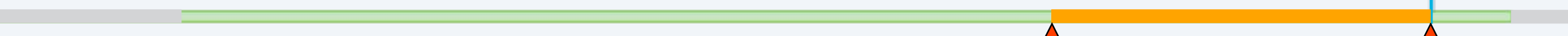
16/01 Final Prototypes

October

November

Dezember

January



# Milestones & Deliverables: Final Presentation

## High-Fidelity Prototyping & Presentation

- 19.12.16 Review High-Fidelity Prototype
- 09.01.17 Review High-Fidelity Prototype
- 16.01.17 High-Fidelity Prototype
- 23.01.17 Preparation Presentation
- 30.01.17 **Deliverable 4**: Final Presentation incl. High-Fidelity Prototype

30/01 Final Presentation



# Your grades (per team!)

- Attendance of & participation in meetings
- 4 deliverables: in time, complete
- Strength of conceptual work (deliverables 1,2)
  - Quality of research
  - Is your concept solving the problem you framed?
  - Is your concept merging hard- and software?
  - Is it supporting ease of usability, conveying information, an emotional experience?
  - How innovative is your concept?
- Strength of prototyping (deliverables 3,4)
  - Does it make the idea experienceable?
  - Does it work? Is it self-explanatory?
  - How well was user feedback carried out and incorporated?
- Presentation
  - How crisp could you bring your work across?
  - Presentation skills, material

# Questions?