Welcome!
Designworkshop II
What are we doing here?
User Experience Design

usable  useful  desirable
valuable findable accessible
credible
Getting the right Design and the Design right...

Bill Buxton - Sketching User Experiences
User Study Design

• The purpose of User Studies
• Research methods and experimental design
• Ethical considerations
• HCI-related and practical information for your own studies
• Interpretation of data and presentation of results


Front Stage
Double Diamond

DISCOVER | DEFINE | DESIGN | DELIVER

source: [8]
Double Diamond

Why? and How?

Source: [8]
We focus on

DISCOVER

DEFINE

source: [8]
Overview

DISCOVER

Research

Innovate

Prototype

DEFINE

source: [8]
Overview

Research

Get to know your problem/subject

Gather insights about the user and their life

Collect artefacts & impressions

Record tasks
In design research we are driven by a need for a deeper understanding

Susan Dray - Dray & Associates, Inc., USA
<table>
<thead>
<tr>
<th>subjects</th>
<th>truth</th>
<th>inspiration</th>
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<tbody>
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<td>traditional</td>
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source: [6,9]
null
Audi A4 Series Cockpit

Different, usage contexts, user types and usage frequency will require dedicated solutions.

source: [7]
Overview

Make sense of your data
Identify important facets
Keep all players in mind
Collect and prioritise ideas
Develop & validate solutions
Concept generation

Iterative:
- General: overall concepts
- Iteration 1: exploratory
- Iteration 2: clarification
- Iteration 3: resolution

Granularity:
- General: overall concepts
- Coarse: significant alternatives
- Medium: intermediate development
- Fine: detailed refinement

source: [1]
Portfolio Wall
Competitive Analysis / Current Interface

Four different adjustments just to make AC right the way you like it.

Too many buttons
Buttons could be simplified and grouped further.

AC adjustments
do not show up on navigation screen.

Turning Knob
for the screen on top is far back; Poor ergonomic.

Buttons with simple icons are centralized at a convenient location.

What is working?
- Screen does not need to be at the same place as control.
- Tactile feel of button/Button grouping
- Appropriate position for frequently used buttons is important.
- Use of color, materials, textures, and lights can improve information hierarchy.

What is NOT working?
- Too many buttons are intimidating.
- Buttons are scattered and not intuitive position.
- Touchscreen requires too much attention.
- Buttons rely on small icons/text which is hard to read.

http://www.jeongyounchoi.com/27891/291635/home/ux-ui-design-clover-car-interface-design
Competitive Analysis / Car Trends

Trends Insight
- More wireless connectivity to information and to others.
- More seamless integration between digital and physical world.
- Devices are more content driven and user centric.
- Better customization capabilities and mobile computing is more prevalent.

Interior Comforts
Communication between Driver and Passengers
Taking the comfort to the next higher plane, models like the 2007 Ford Expedition have ensured better communication between passengers from first to third row by using improved materials in the carpet and other features.

Sound Insulation from Exterior
The SUV provides more insulation behind the dashboard and door panels, thick glass and a steady roof panel, thus preventing itself from blocking the sounds.

http://www.jeongyounchoi.com/27891/291635/home/ux-ui-design-clover-car-interface-design
Literaturrecherche

Google / Google Scholar
http://scholar.google.de

ACM Digital Library
http://portal.acm.org/dl.cfm -> BibTex, Referenzen, Verweise

Citeseer
http://citeseer.ist.psu.edu/cs

IEEE Xplore
http://ieeexplore.ieee.org/Xplore/guesthome.jsp
Literaturrecherche

Zugriff auf diverse Literaturdatenbanken (ACM, IEEE) über LRZ-VPN und –Proxy:
http://www.lrz-muenchen.de/services/netzdienste/proxy/browser-config/
Zugriff auf das ACM Portal und IEEE über LRZ-Proxy:
https://docweb.lrz-muenchen.de/cgi-bin/doc/nph-webdoc.cgi/000110A/http/portal.acm.org/portal.cfm
Zugriff auf Zeitschriften:
http://docweb.lrz-muenchen.de/
Webrecherche

Techblogs:
engadget.com
ted.com

Zugriff auf Zeitschriften:
http://docweb.lrz-muenchen.de/
Overview

Tell a story
Make it tangible

Prototype
| For the Designer: | Exploration |
|                 | Visualisation |
|                 | Feasibly      |
|                 | Inspiration   |
|                 | Collaboration |
| For the End User: | Effectiveness / Usefulness |
|                 | A change of viewpoint |
|                 | Usability      |
|                 | Desirability   |
| For the Producer: | Conviction |
|                 | Specification |
|                 | Benchmarking   |

source: [5]
It’s really hard to design products by focus groups. A lot of times, people don’t know what they want until you show it to them.

Steve Jobs
Fidelity v. Resolution

low resolution
low fidelity

high resolution
low fidelity

high resolution
high fidelity

source: [5]
High Fidelity

Promoting Required
Quick and Dirty
Early Validation

Low Fidelity
Open Discussion

Source: [5]
Low Resolution

Less Details

Focus on core interactions

Quick and Dirty

Early Validation

High Resolution

More Details

Focus on the whole

Deliberate and Refined

Concrete Ideas

source: [5]
1st Iteration
low-res/low-fi
4th Iteration
design by IMAGO DESIGN
high-res/high-fi
80/20 rule

http://www.swissknifeshop.com/media/catalog/product/cache/1/image/5e06319eda06f020e4359429c230972d/v/m/vm_53831--91_sol_front_ax1000.jpg

source: [7]
A principle for setting priorities: users will use 20% of the features of your product 80% of the time. Focus the majority of your design and development effort (80%) on the most important 20% of the product.
OVERVIEW
The Course
Workshop Theme:
universal kitchen: adaptive design in age, culture, gender and space
30/06 Final Prototypes
14/07 Final Presentation
References: