What are we doing here?
User Experience Design

Technology

Business

UX

Design

©Peter Morville
http://semanticstudios.com
User Experience Design

- useful
- usable
- valuable
- findable
- desirable
- accessible
- credible

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Getting the right Design and the Design right...

Bill Buxton - Sketching User Experiences
User Interface

Visible

Behind the Scenes

Capturing

Connecting

Combining

Contextualizing

Transferring

Coordinating

Storing
Double Diamond

DISCOVER  DEFINE  DESIGN  DELIVER

source: [8]
Double Diamond

Why? and How?

source: [8]
Double Diamond

- DISCOVER
- DEFINE
- DESIGN
- DELIVER

What?

source: [8]
We focus on

DISCOVER

DEFINE

source: [8]
Overview

Research  Innovate  Prototype

DISCOVER  DEFINE

© A study of the design process - Design Council London

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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source: [6,9]
frequent users

expert users

inrequent users

novice users

source: [2,4]
BMW i8 Cockpit
BMW i8 Cockpit
infrequent users

frequent users

novice users

expert users

source: [2,4]
Different, usage contexts, user types and usage frequency will require dedicated solutions.
Overview

Make sense of your data
Identify important facets
Keep all players in mind
Collect and prioritise ideas
Develop & validate solutions
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
- Use of color, materials, textures, and lights can improve information hierarchy.

What is NOT working?
- Appropriate position for frequently used buttons is important.
- 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]
Low Fidelity

Open Discussion
Prompting Required
Quick and Dirty
Early Validation

High Fidelity

Sharp Opinions
Self Explanatory
Deliberate and Refined
Concrete Ideas

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
high-res/high-fi
80/20 rule
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: Shape changing surfaces – merging digital and physical information
04/05 Design Concepts
01/06 Initial Prototypes
29/06 Final Prototypes
References: