Workshop

Concept Development

Lecturer: Alexander Wiethoff & Andreas Butz
Tutorials and Organization: Sebastian Löhmann
External Lecturer: Kalle Kormann-Philipson (INNUID)
Industry Partner: Designaffairs Munich
OVERVIEW
Week 1

- Monday: Intro & User Research
Week 1

User Research
Week 1

Data Analysis
Week 1

- Monday
- Concepts and Scenarios
- Tuesday
- Wednesday
- Thursday
- Friday
Week 2

Mid Presentation w. Guests
Research
Recap:
Design Process

Elaboration
opportunity seeking

Reduction
decision-making
People
**ANALYSIS**
Definition of the system
What is the problem?

**EVALUATION**
Possible alternatives
What future do we want?

**SYNTHESIS**
Design of final solutions
What do we implement?

The designer is an 'problem-scouter'

The designer is a 'story-teller'

The designer is an 'executor'

source: [4]
Tools of Trade:
Interviews

**Unstructured** - are not directed by a script. Rich but not replicable.

**Structured** - are tightly scripted, often like a questionnaire. Replicable but may lack richness.

**Semi-structured** - guided by a script but interesting issues can be explored in more depth. Can provide a good balance between richness and replicability.

source: [8]
Running the interview

- **Introduction** – introduce yourself, explain the goals of the interview, reassure about the ethical issues, ask to record, present any informed consent form.

- **Warm-up** – make first questions easy and non-threatening.

- **Main body** – present questions in a logical order

- **A cool-off period** – include a few easy questions to defuse tension at the end

- **Closure** – thank interviewee, signal the end, e.g., switch recorder off.

source: [8]
Structuring frameworks to guide observation

- The person. **Who?**
- The place. **Where?**
- The thing. **What?**

**The Goetz and LeCompte (1984) framework:**
- Who is present?
- What is their role?
- What is happening?
- When does the activity occur?
- Where is it happening?
- Why is it happening?
- How is the activity organized?
Day 1:

Morning Session:
1.) 9:20 Course Organisation & Introduction Lecture
2.) 5 Minute Presentations

Afternoon Session:
3.) User Research in the Field
To Get 6 ECTS:

1.) Mandatory attendance
2.) Presentations (two with guests)
3.) Be an active member of your team
4.) Hand in the presentations and the video prototype
5.) Document, Document, Document
Blog:

1.) http://conceptdevelopment.lmu.wordpress.com
   * each team creates an account @ wordpress.com
   * use this suffix: cd2014x (x is your team no.)
   * all accounts will get access to create posts

2.) Three posts: User Research, Concept, Videoprototype
Design challenge

The best project wins a non-cash prize sponsored by designaffairs
First Blog Post

* one photo & about 150 words abstract
* categories: WS1314; User Research, Team X
* deadline: wednesday 23:59
After the presentation:

Do field research (today & tomorrow & wed)
Gather back here: Thursday 9:00 (c.t.)
Thanks & Have Fun!

Thursday Bring:

* Videos & Audio (5 good Images per team)
  * Each team one laptop with the data
* Transcript interviews (printed and PDF)
  * Camera (one per team)
References:

Innovate
Workshop
Concept Development

Lecturer: Alexander Wiethoff & Andreas Butz
Tutorials and Organization: Sebastian Löhmann
External Lecturer: Kalle Kormann-Philipson (INNUID)
Industry Partner: Designaffairs Munich
Agenda

Day 1 - Thu  Concept Development & Tools

Day 2 - Fri  Tools

Day 3 - Mon  Mid presentation
Agenda Day 4

9:15 - 10:00  Introduction
10:00 - 12:30  Affinity Diagramming
12:30 - 13:00  Break
13:00 - 13:30  Opportunity Matrix
13:30 - 14:30  Solution Description
14:30 - 17:00  Group Presentation
What is a product?
What is a service?
What do they have in common?
Front Stage
Back Stage

Todos productos modernos necesitan ser más que solo funcionales.
They need to serve your needs ...
... and deliver memorizable experiences.
Getting the right Design and the Design right...
What is Concept Development?
Definition & Focus

Concept Development is a **rapid-creative session** where all participants work and iterate through a **design-led process** to create valuable and tangible results.
Definition & Focus

It is made to **generate** product ideas, **validate** and **enhance** existing products or ideas, and to **find solutions** to all sorts of problems.
Related fields

Creativity
HCD/UCD
HCI
Design Thinking
Strategy
Innovation

Future Studies
Decision Making
Lean
Product Design
Service Design
User Experience Design
Teamwork/Collaboration
User Experience Design
User Experience Design

Focus is on the use/customer/people.

Takes business requirements into account.

Follows the User Centered Design process.

UX is a combination of several design disciplines.
User Experience Design

http://www.kickerstudio.com/2008/12/the-disciplines-of-user-experience/
User Experience Design

Technology

Business

UX

Design
User Experience Design

http://semanticstudios.com/publications/semantics/000029.php
User Experience Design - Process

http://www.sapdesignguild.org/resources/ucd_process.asp
What is Lean UX?
What is Lean UX?

Lean UX embraces the idea of short iterations focused on measuring and learning to tackle complexity.

http://epicbagel.com/defining-lean-ux/
What is Lean UX?

It removes departmental constraints on design and communication, allowing you to get truly close to product strategy.

http://epicbagel.com/defining-lean-ux/
What is Lean UX?

Design solutions no longer become buried and diluted through bloated deliverables.

http://epicbagel.com/defining-lean-ux/
What is Lean UX?

1. You create design **hypothesis**
2. You **test** it
3. You **learn** from the outcome, **focus** on **insights** than data

http://epicbagel.com/defining-lean-ux/
What is Lean UX?

Build-Measure-Learn

Lean Start-up Methodology by Eric Ries
What is LeanUX?

What is LeanUX?

Think
Make
Check

by Janice Fraser
What is LeanUX?

10 Principles from LUXR
Design + Product Management + Development = 1 team
Externalize!
Goal-driven & outcome-focused
Repeatable & routinized
FLOW: think -> make -> check
Focus on solving the right problem
Generate many options
Decide quickly what to pursue & hold decisions lightly
Recognize hypotheses & validate them
Research with users is the best source of information & inspiration

http://luxr.co/10_principles_of_lean_user_experience
Design Thinking
Design Thinking

Design thinking refers to the methods and processes for investigating ill-defined problems, acquiring information, analyzing knowledge, and positing solutions in the design and planning fields.
“Zoomed out vs. Zoomed in”
Zoomed Out vs. Zoomed In

Zoom Out vs. Zoom is a way of design thinking.

Interactions designers are often facing increasingly complex situations.

Zooming in and out makes them flexible and helps to define on which level to intervene.
Zoomed Out vs. Zoomed In
Design Thinking

Design thinking is generally considered the ability to combine:

- **empathy** for the context of a problem,
- **creativity** in the generation of insights and solutions, and
- **rationality** to analyze and fit solutions to the context.
Design Thinking - Process
Concept Development Process
The creative process.
The basis.

DIVERGE

CREATE CHOICES

CONVERGE

MAKE CHOICES
Double Diamond

- DISCOVER
- DEFINE
- DESIGN
- DELIVER
Double Diamond

DISCOVER | DEFINE

DESIGN | DELIVER

What?
We focus on
Overview

Research  Innovate  Prototype
Research

Overview

Get to know your problem/subject
Gather insights about the user and their life
Collect artifacts & impressions
Record tasks
Overview

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

Research

Innovate
Overview

Tell a story
Make it tangible
Concept Development
5 Principles
Concept Development
5 Principles

1 - Stay user/consumer focused
Watch them. What are they doing? What are their daily problems and hurdles?

Focus and follow on their needs.

Try to identify their habits and their workarounds to make their lives easier.
2 - Gather a diverse team to succeed
It is good to have multiple perspectives to the world!

Only a diverse group of people is able to look at a problem from different perspectives as their backgrounds and experiences are different.
3 - Be flexible / Stay low-fi as long as possible

Do not waste energy by creating hi-fi work as you are working through the CD process!

If you are not emotionally attached to a piece of work you can easily let go.
4 - Short time frames
Set yourself constraints!
If you set a time limit your output and work will be more focussed and you will not be distracted by too many influences.

This principle lets you stay focussed!
Concept Development
5 Principles

5 - Show and tell as often as possible
Present your ideas and findings often to the whole group or others.

Gather feedback and make use of it in the next iteration
Stop.
We are about to enter the „Innovate“ Phase!
Tool-Kits
IDEO Method Cards

http://www.ideo.com/work/method-cards/

Scenarios

HOW: Illustrate a character-rich story line describing the context of use for a product or service.

WHY: This process helps to communicate and test the essence of a design idea within its probable context of use. It is especially useful for the evaluation of service concepts.

Bodystorming

HOW: Set up a scenario role with or without the real customer's role on the intuitive responses to the physical environment.

WHY: This method helps to generate and test behavior-based ideas.

2009 Series

A/B Testing #33

Affinity Diagram #34

Collaborative Inspection #35

Concept Model #36

Diary Study #37

Five Sketches™ #38

GOMS (Goals, Operations, Methods, Strategies) #39

Concept Video #40

Participatory Design #41

nForm
http://nform.com/tradingcards/
Concept Development Tool-Kit
Creative tools to solve problems

Affinity Diagram
Opportunity Mind Map
Solution description & validation
Swim-lanes
Scenarios
Storyboards
Affinity Diagram
Make sense of collected data

http://wiki.fluidproject.org/download/attachments/2395197/100_1885.JPG
1. Brainstorming Webs

2. Affinity Diagrams

3. Flow Diagram
Brainstorming Webs

Used when developing a central concept or question
Can be build by identifying the center first, then all of the extensions
Flow Diagram

Represent a series of events, actions or processes of different actors
Usually have a beginning and an end point
Affinity Diagram

Communicate a hierarchy or relationships between main and supporting ideas
Can be constructed from “bottom up” or “top down”
Affinity Diagram

What?
It is a method for sorting and making sense of data.

Data points can be recorded on sticky notes and sorted into logical groups. It could be employed as an individual or group exercise.
Why?
You can experiment with different arrangements to see which makes the most sense.

Affinity Diagramming helps to expose crucial relationships and patterns in data that may not be initially apparent.
Affinity Diagram

Guidelines
Every little counts!
Use all data you gathered and cluster it into meaningful groups.
Have your user in mind and also try to shape their personas as you add, cluster and think about your data.
Affinity Diagram

An affinity diagram helps to synthesize large amounts of data by finding relationships between ideas. The information is then gradually structured from the bottom up into meaningful groups. From there you can clearly "see" what you have, and then begin your analysis. When you work through the process of creating relationships and working backward from detailed information to broad themes, you get an insight you would not otherwise find.

**Process**
1. Brainstorm or use your recorded research data to identify ideas, issues, processes or other aspects
2. Record each finding on cards or post-it notes
3. Look for related ideas and/or findings
4. Sort notes or cards into groups until all cards have been used
5. Repeat this as many times as needed
6. Add labels to themes if appropriate
7. Draw connections between findings and themes

**How to cluster and model data.**
Everyone reads through the post-its and arranges them.
Everyone is allowed to re-order
Group post-its into themes.
Name and discuss the themes
BREAKOUT SESSION 1
10:00-12:30
gather back at 13:00
Opportunity Mind Map
Opportunity Mind Map

What?
Organizing aspects of the project and mapping areas of opportunities for innovation.
Opportunity Mind Map

Why?
The map becomes a tool for teams to have early conversations about where it is more interesting for potential solutions to be developed.
Opportunity Mind Map

Guidelines

**Step 1** Define the core topic and related aspects.

**Step 2** Map the core topic and related aspects.

**Step 3** Explore opportunities around the core topic.

**Step 4** Refine the map according to attributes.

**Step 5** Analyze the map and recognize areas for further exploration.
Opportunity Mind Map

Concept Development
Opportunity Mind Map

Organizing aspects of the project and mapping areas of opportunities for innovation.
Solution description & validation
Solution description & validation

What?
A short description of the core idea and a look at its User need, Approach, Benefit and Competition.
Solution description & validation

Why?
Writing a pitchable summary of the idea and looking at its User need, Approach, Benefit and Competition forces us to think about the idea and to develop a pitchable and tangible description.
Solution description & validation

**Guidelines**

To create a good summary of your idea, you need to name the idea’s most valuable and core solutions and facets which makes it unique.
When designing solutions designers are often confronted with countless innovative ideas that need to be synthesized and bundled into dedicated value propositions. While the concepts of customer value and value propositions are admittedly a bit abstract, the NABC (Need, Approach, Benefit, Competition) framework can help to better understand and sharpen the value proposition of your product or service.

The framework has been developed by Curtis Carlson and William Wilmot and has been summarized in their book “Innovation – The Five Disciplines for Creating What Customers Want”.

### ELEVATOR PITCH

<table>
<thead>
<tr>
<th>NEED</th>
<th>APPROACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>What is the important customer and market need?</td>
<td>What is the unique approach for addressing this need?</td>
</tr>
</tbody>
</table>
Prepare a **5 min** presentation for **14:30**
include: Elevator Pitch, Customer/User, Need, Approach, Benefit
1 slide each.

Email slides to sebastian.loehmann@ifi.lmu.de
Presentations
Gather back tomorrow at 9 c.t.
Workshop

Concept Development

Lecturer: Alexander Wiethoff & Andreas Butz
Tutorials and Organization: Sebastian Löhmann
External Lecturer: Kalle Kormann-Philipson (INNUID)
Industry Partner: Designaffairs Munich
Agenda Day 2

9:15 - 9:30 Recap and Tools
9:30 - 11:00 Swim-lane Diagram
11:00 - 12:30 Scenarios
12:30 - 13:00 Break
13:00 - 17:00 Storyboards
Recap

What happened yesterday?
Swim-lanes
Map identified processes
Swim-lanes

What?
A diagram that shows parallel streams for user, business, and technical process flows. Arranged for each core product scenario or activity. Provides foundation for use cases.
Swim-lanes

Why?
Ensures alignment and integration of task flow with business process and technical requirements. Allows understanding of all components of a specific process in one document, while allowing clearer separation, responsibility, and delegation.
Swim-lanes

**Guidelines**
- Identify involved people, systems and tools
- Break the process into single steps/actions
- Visualize the process
Swim-lanes

Concept Development

Swim-lanes

The swim-lane flowchart differs from other flowcharts in that processes and decisions are grouped visually by placing them in lanes. Parallel lines divide the chart into lanes, with one lane for each person, group or subprocess. Lanes are labelled to show how the chart is organized. In the accompanying example, the vertical direction represents the sequence of events in the overall process, while the horizontal divisions depict what subprocess is performing that step. Arrows between the lanes represent how information or material is passed between the subprocesses. [http://en.wikipedia.org/wiki/Swim_lane]

Process

1. Identify involved people, systems and tools
2. Break the process into its single steps / actions
3. Visualize the flow of the process - connect people, systems and tools depending on their involvement in the process over time.
4. Look for patterns (here you could try to streamline the process)

How to create a task map and analysis it using the swim-lane layout?

Each player (person, system or tool) gets a “lane”.

Each action gets associated to a players “lane” in relation to time. The steps get connected. Patterns should emerge.
BREAKOUT SESSION 4
09:30-11:00
Scenarios
Scenarios

What?
A scenario is a story about someone (usually your users) using whatever is being designed to carry out a specific task or goal.
Scenarios

Why?
Creating a scenario sets you into the users position and helps you to understand and the user's experience.
Scenarios

Guidelines
Scenarios can be very detailed, all the way to very high level but should at least outline the ‘who’, ‘what’, ‘when’, ‘where’, ‘why’, and ‘how’ of the usage.

In the end it has to be a story that let the reader understand and engage with the user and the proposed solution.
Concept Development

Scenarios

1. Choose a scenario
Take one of your key tasks/features that your users will be doing/using and answer the following questions: What must someone do to be able to use the proposed feature? What are the really key tasks from a user and business perspective?

For example, for an ecommerce website you might use buying an item as a scenario. Note down some context for the scenario. For each scenario that you map out it’s important to consider and make a note of the: who; what; where; why; and how often of the scenario. For each step you’ll want to capture the following on different post-it notes use notation such as ‘[s]’ for a step and ‘[q]’ for questions to distinguish the different types of information: What the user does.

Remember to focus on what happens, not necessarily how it happens. For example, Paul brings up a larger image of a bouquet of flowers that he thinks his Mum would like.

Any comments or information that you feel is important at this step. For example, you might want to make a note that there might be alternative images available for a bouquet of flowers, such as a front and side shot.

Any questions or assumptions that arise at this step that you’ll want to resolve. For example, will the images for flowers all be the same size and aspect ratio?

Any ideas or good suggestions that people have. For example, it would be good to allow Paul to zoom in on an image so that he can see the bouquet of flowers in more detail.

2. Map the scenario
Use Post-its to map out each step horizontally, from left to right and details, such as comments, ideas and suggestions vertically below the associated step. It’s important to stick steps at the top so that someone can follow the scenario by reading the top row left to right. Initially you want to keep the steps relatively high-level but each iteration should reveal more details.

3. Iterate

4. Capture your Scenario
It is always useful to take a picture of your post-its as a future reference. It helps you to write the scenario down in more detail. This is important as it will be a reference for presentations or initial prototypes.
Viral Video Storyboard (modified due to location)

**Shot 1**
Note: Zoom out as cyclos come down the hill.

**Shot 2**
Note: As the cyclist walk through bike around us filming.

**Shot 3**
Note: Close up of the Flag Carrier following the car.
Zoomed Out vs. Zoomed In
Storyboards

What?
Storyboards are the basis to understand a solution within the world of your users. It adds real-world contexts that involve place, people, and other potentially informative ambient artifacts to an identified process of your solution.
Storyboards

Why?

Storyboards enable to learn about unexpected things, and embedding that context into your design efforts helps keep them grounded in the reality of the users’ lives.

Further it lets you focus on the core aspects of a process.
Storyboards

Guidelines

Be simple! Use your Scenario as a basis and reduce it to six key aspects you need to show.

Communicate what your idea is about. Focus on one or two core solutions and tell your audience about the impact your idea has and when it will be used best.
Concept Development
Storyboard

Problem (2 Frames) - Solution (3 Frames) - Benefit (1 Frame)

Be simple. You don’t need to be able to draw. Stickman and camera movements will do the job!
BREAKOUT SESSION 6
13:00-16:00
prepare 3 storyboards in teams of 2

gather back at 16:00
Mid Presentation (Monday)

5 Minutes + Q&A with Guests

Suggestion:
What are you building and for whom?
(User Research/Group and Elevator Pitch)

How does a user experience your solution?
(Can be 6 Keyframe Storyboard)
(all effects allowed)
Deliverables:

Deadline UniWorX 16.03.14 23:59

-PDF Slides
Second Blog Post

- one photo & about 150 words abstract
- categories: WS1314; Concept, Team X
- deadline: sunday 23:59
Thanks and have fun!

We will be around till 5 (feedback on demand)
References: