

Workshop

Concept Development

Lecturer: Alexander Wiethoff & Andreas Butz

Tutorials and Organization: Sebastian Löhmann

External Lecturer: Kalle Kormann-Philipson (Google)

Guest Examiners: Alexander Peters & Simon Biemer
(Designaffairs), Kalle Kormann-Philipson (Google)



OVERVIEW

Week 1

Intro & User Research



Monday

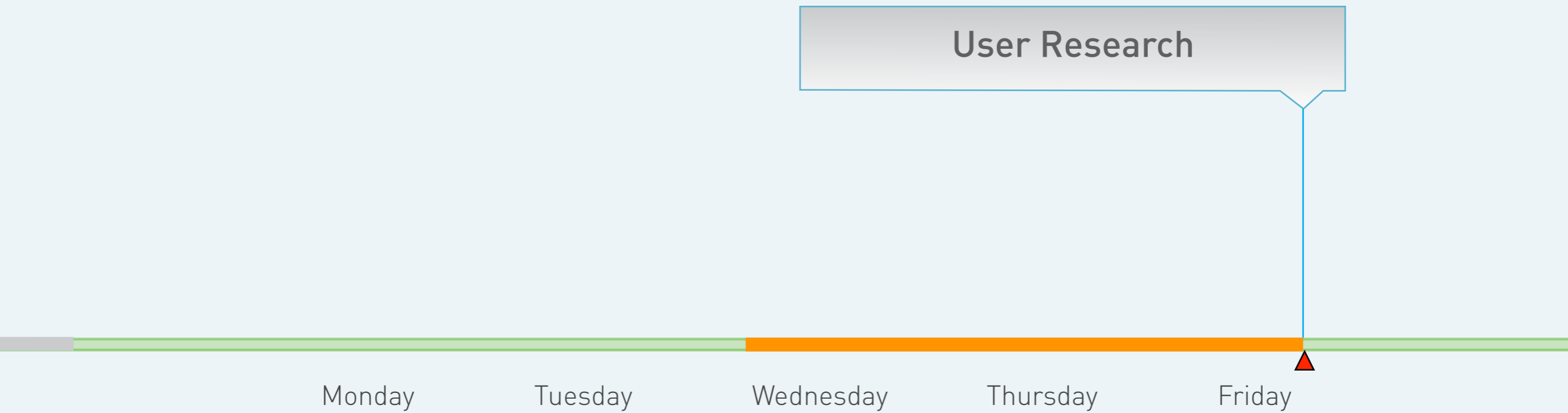
Tuesday

Wednesday

Thursday

Friday

Week 1



Week 2

Data Analysis



Monday

Tuesday

Wednesday

Thursday

Friday

Week 2

Concepts & Scenarios

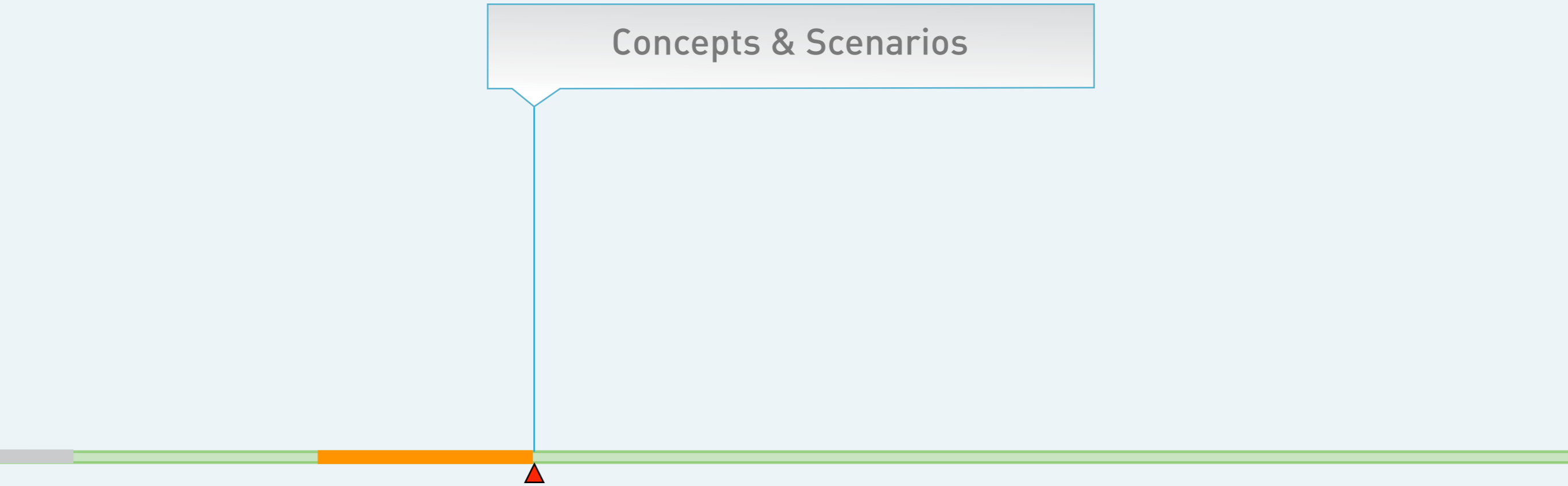
Monday

Tuesday

Wednesday

Thursday

Friday



Week 2

Mid Presentation w. Guests

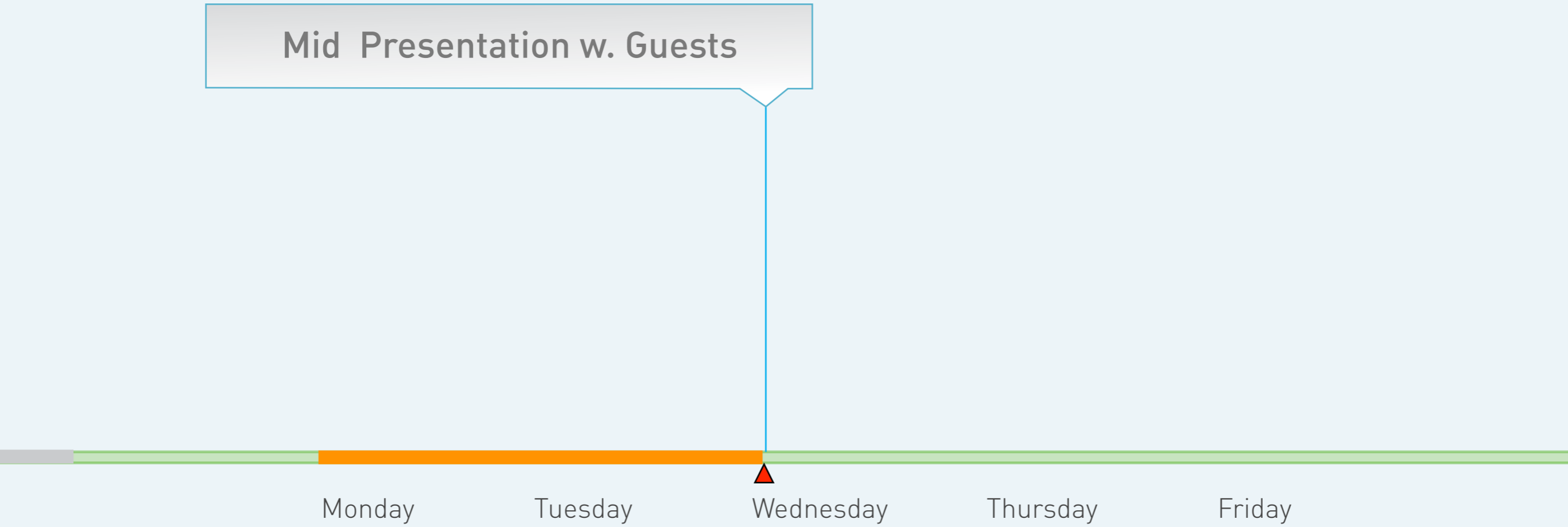
Monday

Tuesday

Wednesday

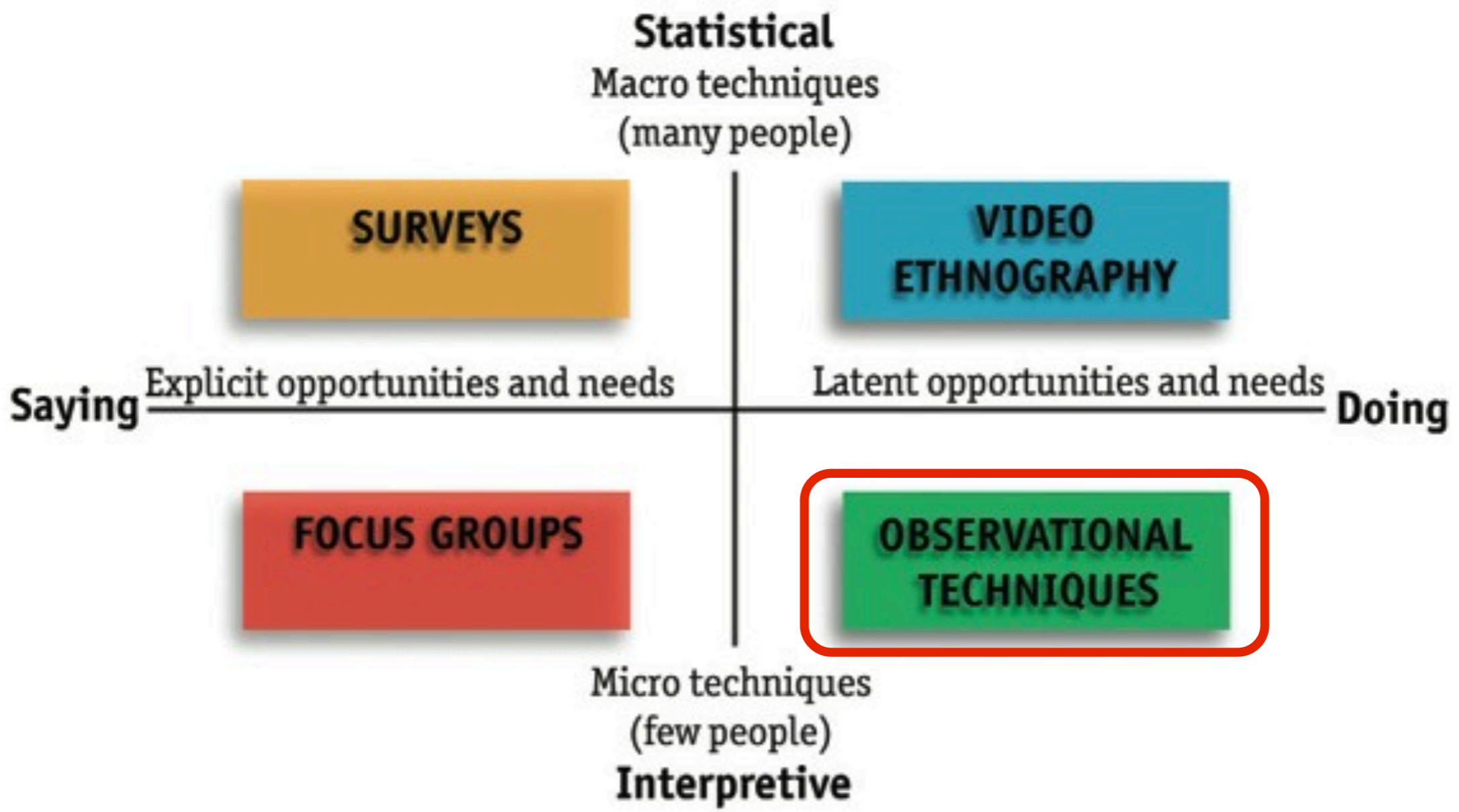
Thursday

Friday



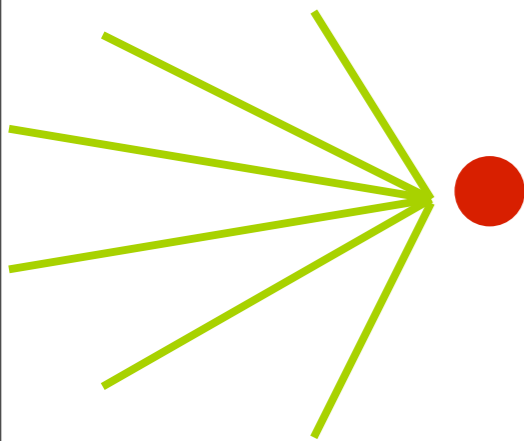
Research

Recap:



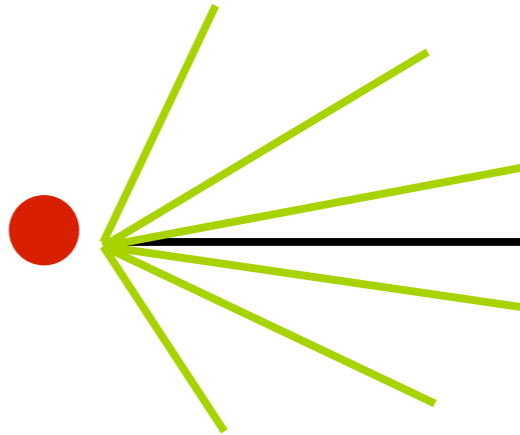
ANALYSIS

Definition of the system
What is the problem?



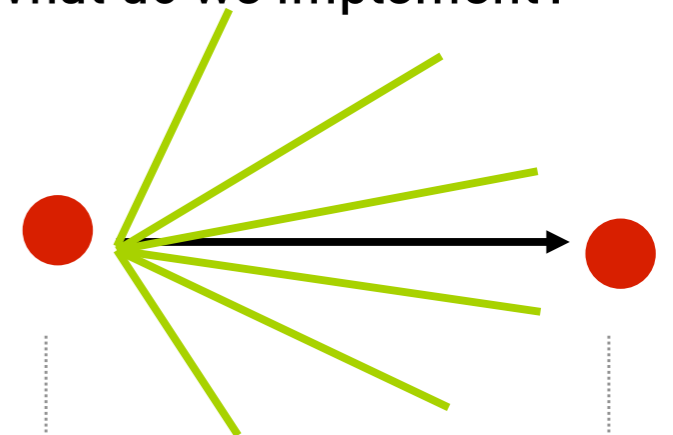
EVALUATION

Possible alternatives
What future do we want?



SYNTHESIS

Design of final solutions
What do we implement?



brief

solution

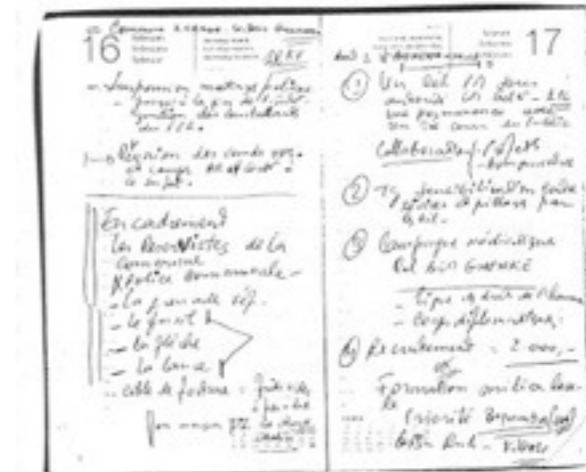
The designer is a
'problem-scouter'

The designer is a
'story-teller'

The designer is an
'executor'



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.

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.

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 Organization & 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://conceptdevelopmentlmu.wordpress.com>

*each team creates an account @ wordpress.com

* use this suffix: cd2013x (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: WS1213; User Research, Team X
- * deadline: friday 23:59

After the presentation:

Do field research (today & tomorrow)
Gather back here: Monday 9:00 (c.t.)

Thanks & Have Fun!

Monday Bring:

- * Videos & Audio
- * Each team one laptop with the data
 - * Transcript interviews (printed)
 - * Camera (one per team)

References:

- [1] Buxton, W. Sketching User Experiences, *Morgan Kaufmann* 2007.
- [2] Blom, J & Chipchase, J : Contextual and cultural challenges for user mobility research, *ACM Press* 2005.
- [3] CHI'10 *Panel Discussion on User Research*, 2010.
- [4] Copenhagen Institute of Interaction Design, *User Research Workshop* 2008.
- [5] Jonas, W. A Scenario for Design, *MIT Press* 2001.
- [6] Norman, D. The Psychology of Everyday Things, *Basic Books* 1988.
- [7] Moggridge, B. Designing Interactions, *MIT Press*, 2006.
- [8] Rogers, Y., Preece, J. & Sharp, H. Interaction Design, *Wiley & Sons* 2011.
- [9] Saffer, D. Designing for Interaction, *New Riders* 2009.
- [10] Walonick, D. Survival Statistics, 2004.

Innovate

Agenda

Day 1 Concept Development & Tools

Day 2 Tools

Day 3 Mid presentation

Agenda

9:15 - 10:00 Introduction

10:00 - 12:30 Breakout Session 1

12:30 - 13:30 Break

14:00 - 15:30 Breakout Session 2

15:45 Presentation

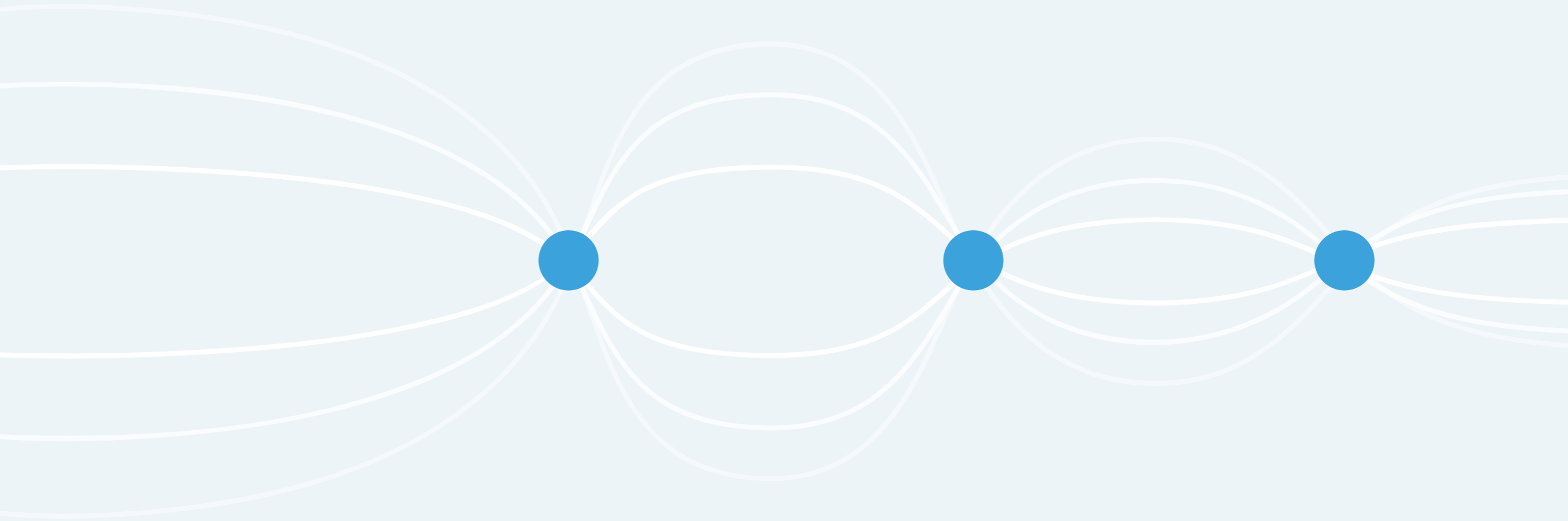
Brief: Chains of Interactions to Support Work Processes.

Smart Services and Devices

a

S

?





Front Stage

<http://www.markabull.com/wp-content/uploads/2011/01/stage.jpg>



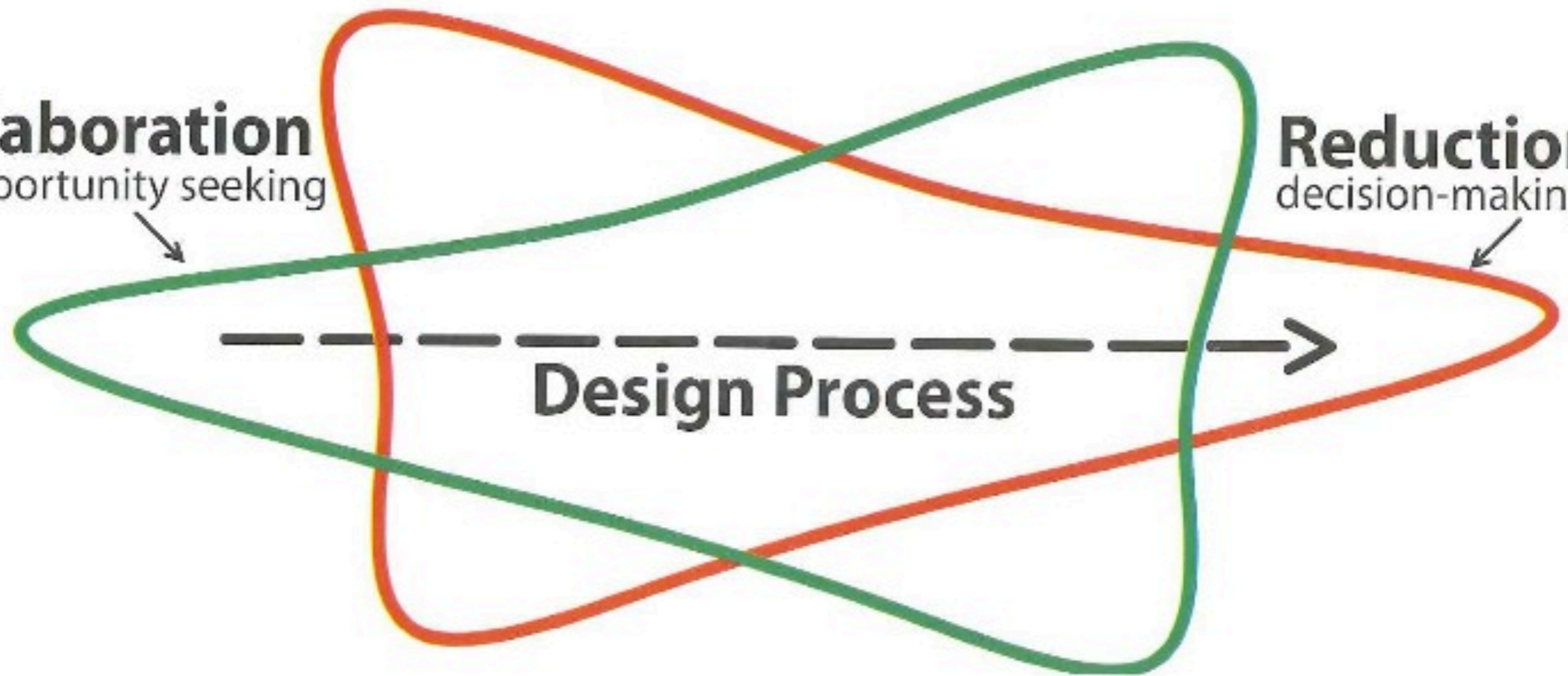
Back Stage

<http://blog.entrepreneurhearts.com/etablog/wp-content/uploads/2010/08/backstage.jpg>

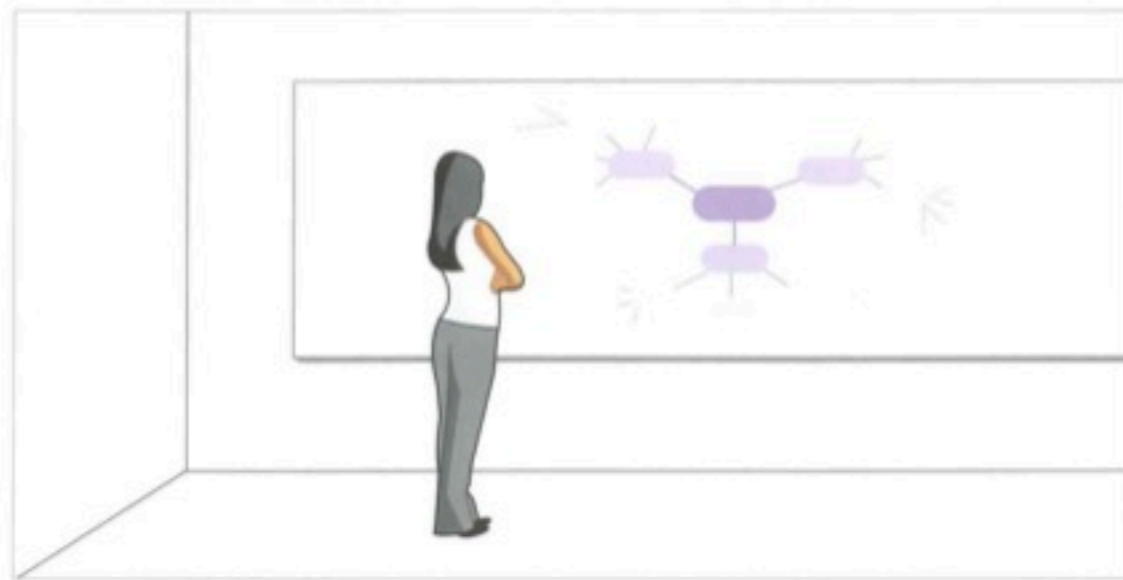
Getting the right Design and the
Design right...

Elaboration
opportunity seeking

Reduction
decision-making



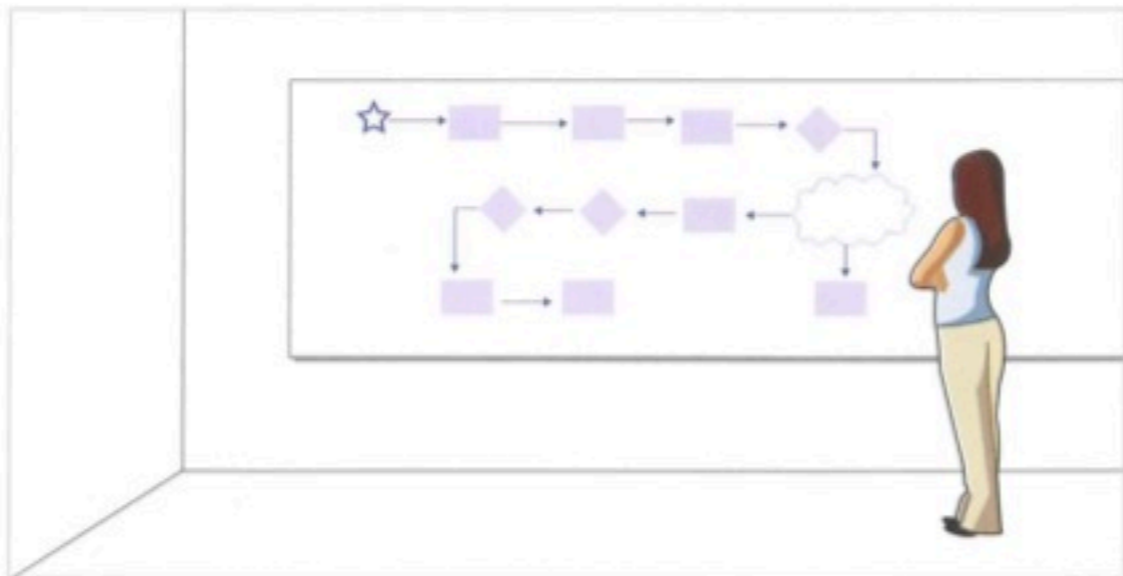
Design Process



1. Brainstorming Webs

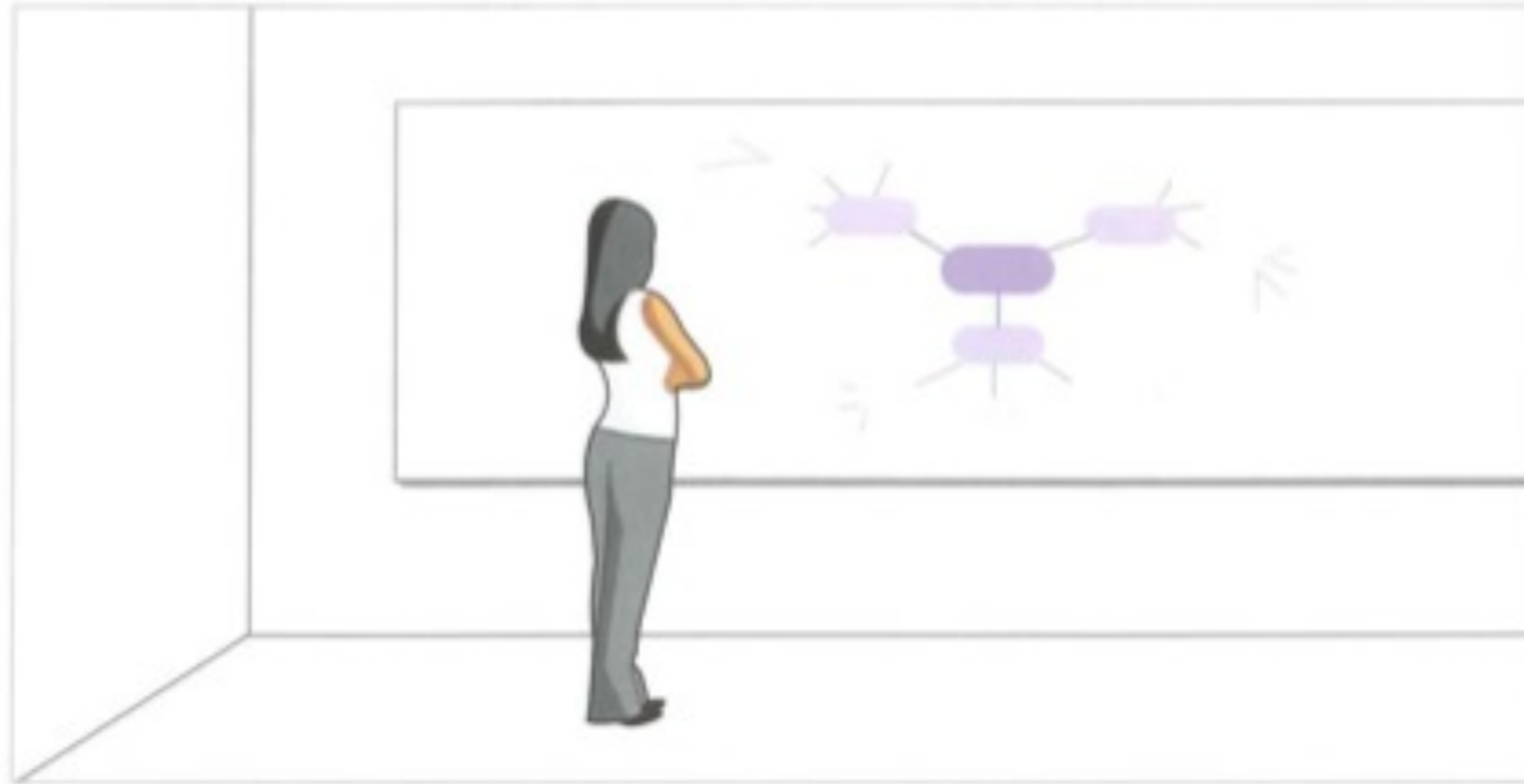


2. Tree Diagram



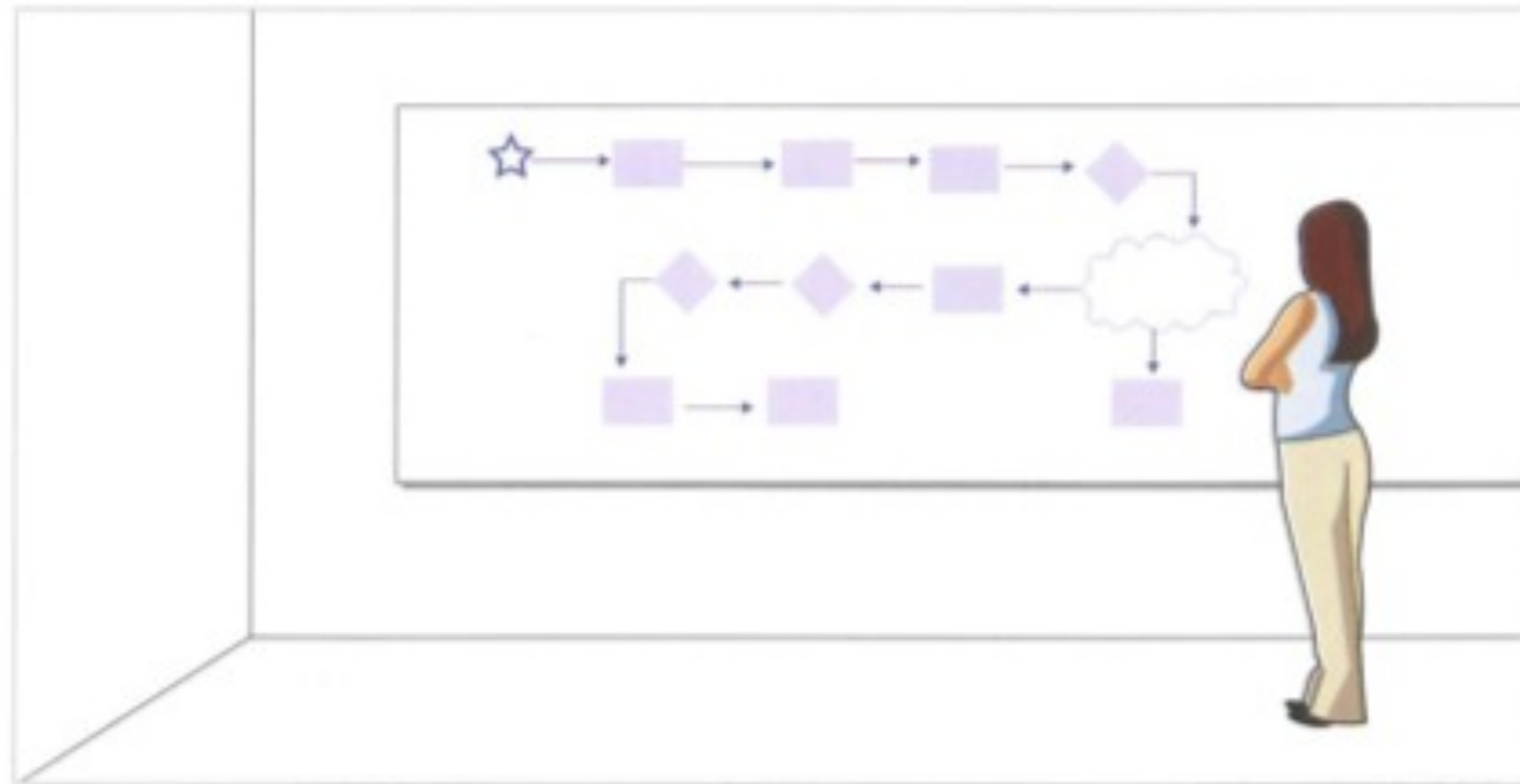
3. Flow Diagram

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



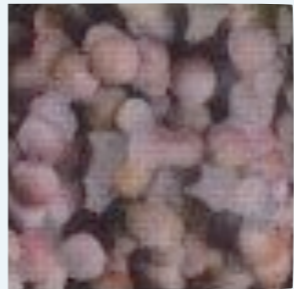
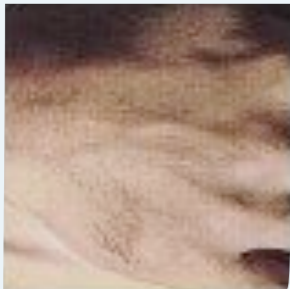
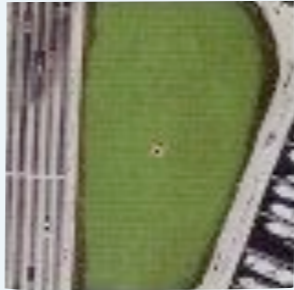
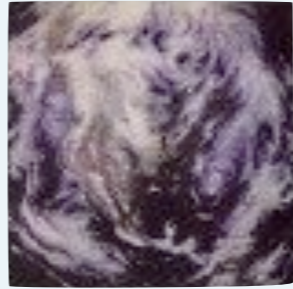
Communicate a hierarchy or relationships
between main and supporting ideas
Can be constructed from “bottom up” or “top
down”

Tool: “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.



Holistic



User



Technology

“Brainstorming Rules”



THE NEW YORKER

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DAILY SHOUTS

PAGE-TURNER

DAILY COMMENT

AMY DAVIDSON

THE NEW YORKER | REPORTING & ESSAYS


ANNALS OF IDEAS


GROUPTHINK

The brainstorming myth.

BY JONAH LEHRER

JANUARY 30, 2012

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 +1 695

In the late nineteen-forties, Alex Osborn, a partner in the advertising agency B.B.D.O., decided to write a book in which he shared his creative secrets. At the time, B.B.D.O. was widely regarded as the most innovative firm on Madison Avenue. Born in 1888, Osborn

where he started out working in newspapers, and his life at B.B.D.O. began when he teamed up with another young adman he'd met volunteering for the



http://www.newyorker.com/reporting/2012/01/30/120130fa_fact_lehrer

Avoid too early judgment

There are no bad ideas at this point. There is plenty of time to judge later.



Bring in also crazy ideas

It's the wild ideas that often provide the breakthroughs. It is always easy to bring ideas down to earth later!



Place ideas of on
top of each other

Think 'and' rather than
'but'.

m

Keep the focus on
the topic

You get better output if
everyone is disciplined.



One conversation at
a time

That way all ideas can be
heard and built upon.

S

Get visual

Try to engage the
left and the right
side of the brain.

P

Foster quantity

Set an outrageous goal
and surpass it!



This is just your starting point.

After you try out some of your ideas, with some expected success and failure, you can always come back to the pool of brainstorm ideas and try out a new concept.

References:

- [1] Buxton, W. Sketching User Experiences, Morgan Kaufmann 2007.
- [2] Greenberg, S. et al. Sketching User Experiences: The Workbook. Morgan Kaufmann, 2012.
- [3] Osborn, A.,: Your creative power
- [4] Osborn, A.: Applied Imagination: Principles and Procedures of Creative Problem-Solving
- [5] Hyerle, D.,: Visual Tools for Constructing Knowledge
- [6] Martin, B., Hanington, B.: Universal Methods of Design

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.

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

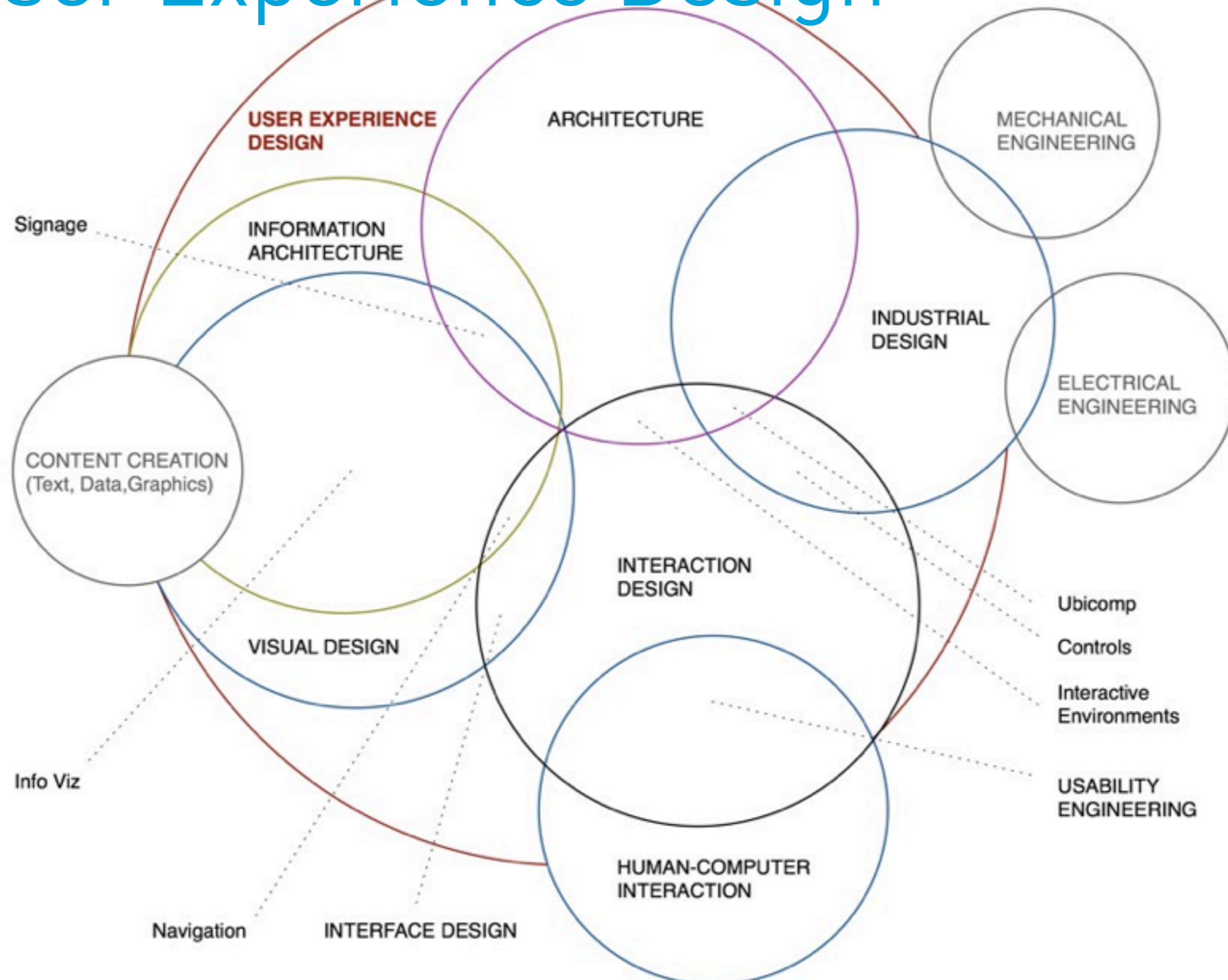
Focus is on the use/customer/people.

Takes business requirements into account.

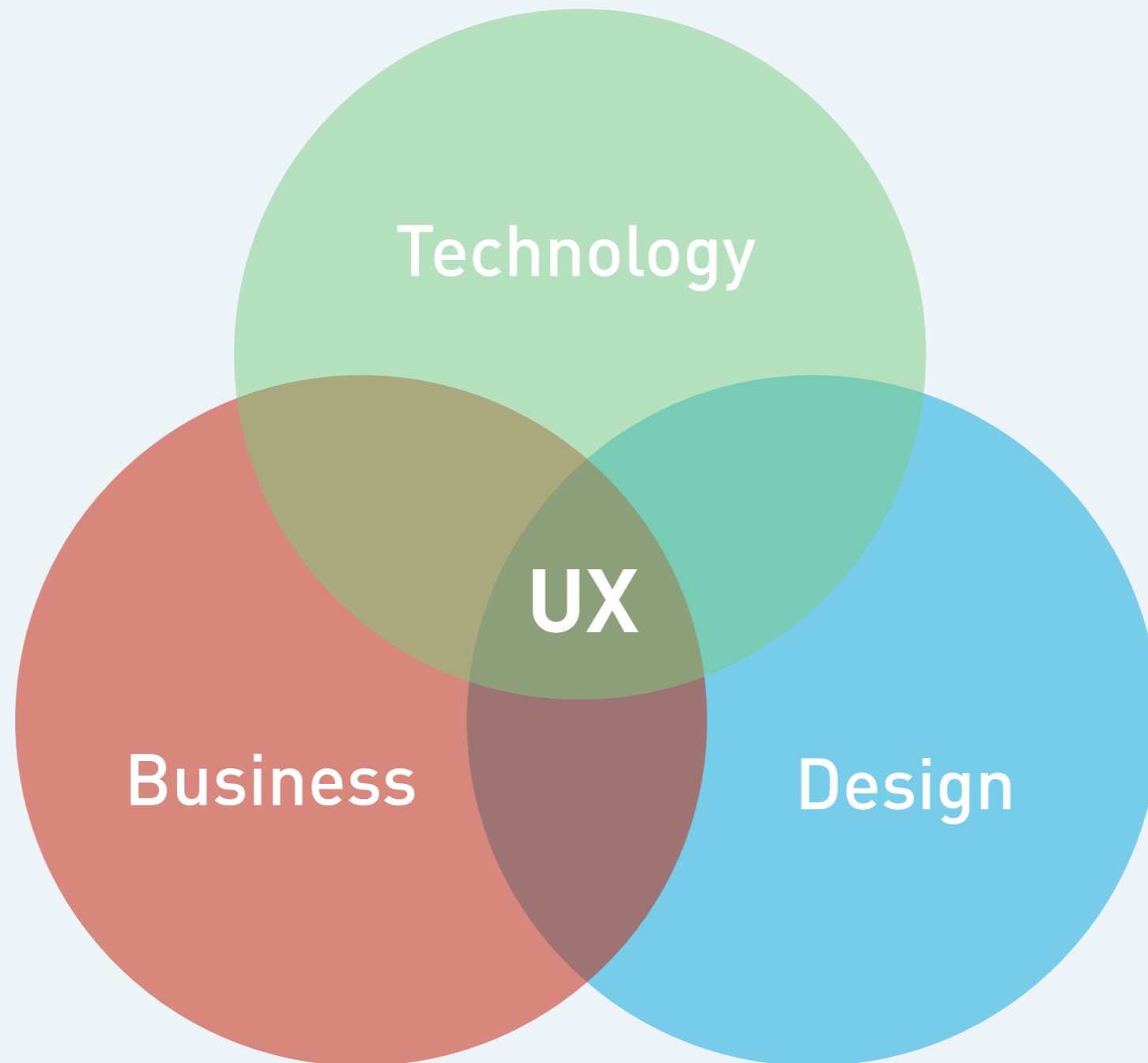
Follows the User Centered Design process.

UX is a combination of several design disciplines.

User Experience Design



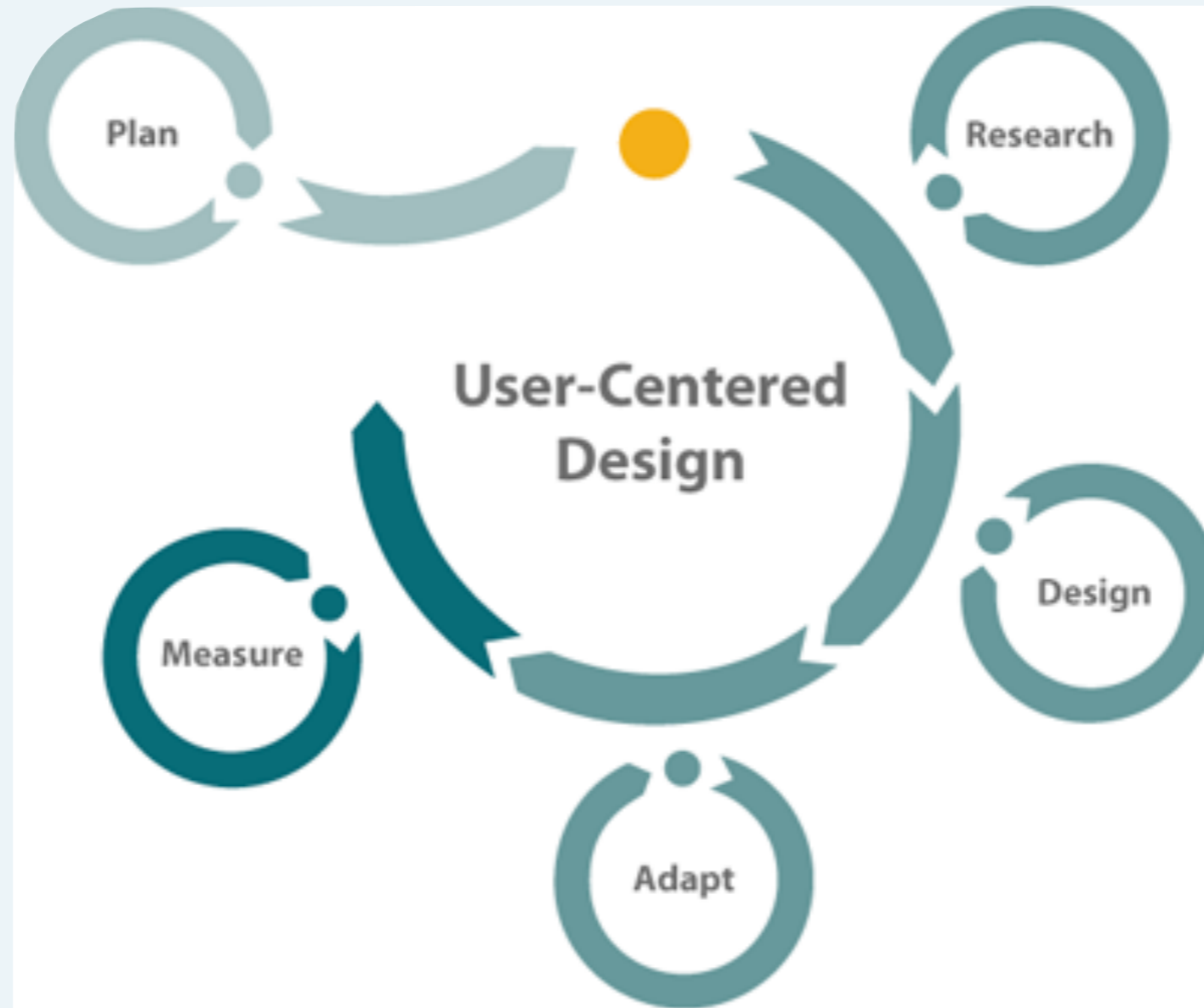
User Experience Design



User Experience Design



User Experience Design - Process



What is LeanUX?

What is LeanUX?

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

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

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

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

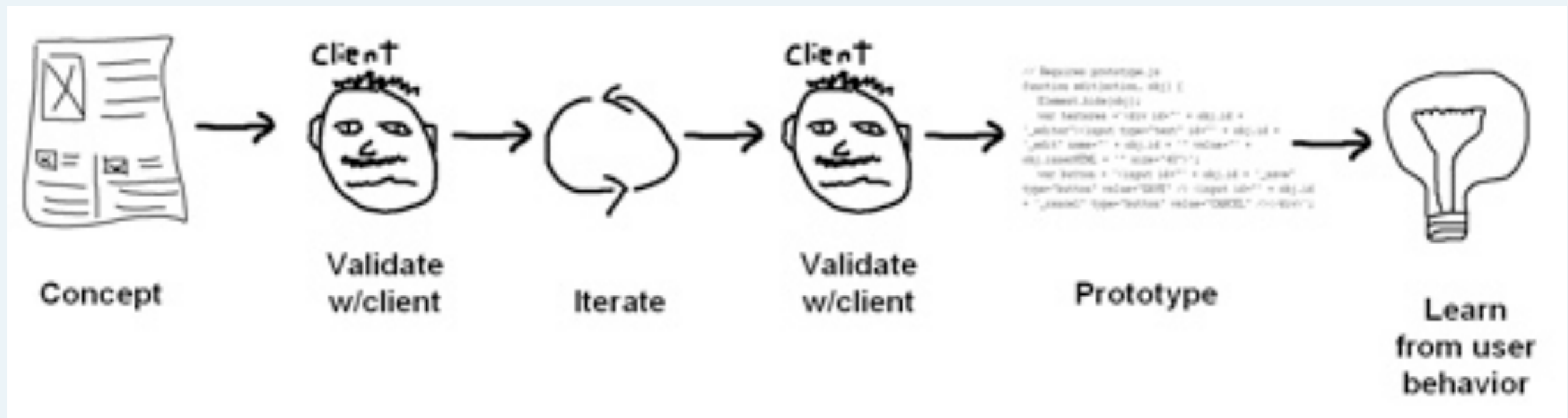
Generate many options

Decide quickly what to pursue & hold decisions lightly

Recognize hypotheses & validate them

Research with users is the best
source of information & inspiration

What is LeanUX?



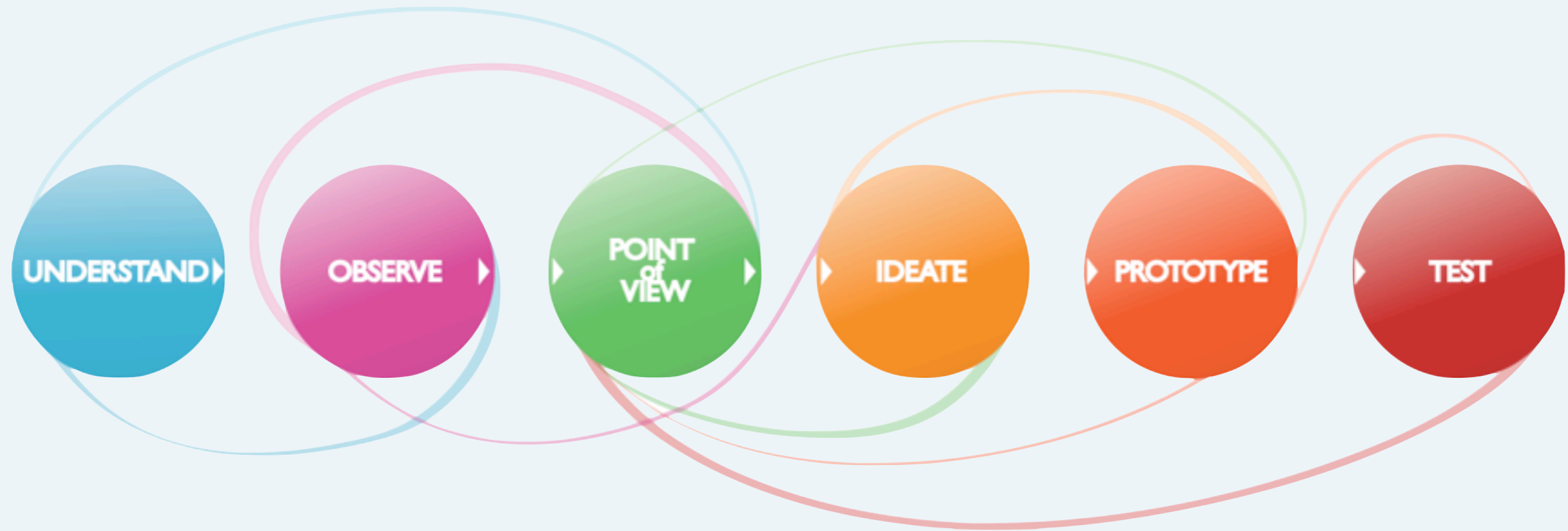
Design Thinking

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

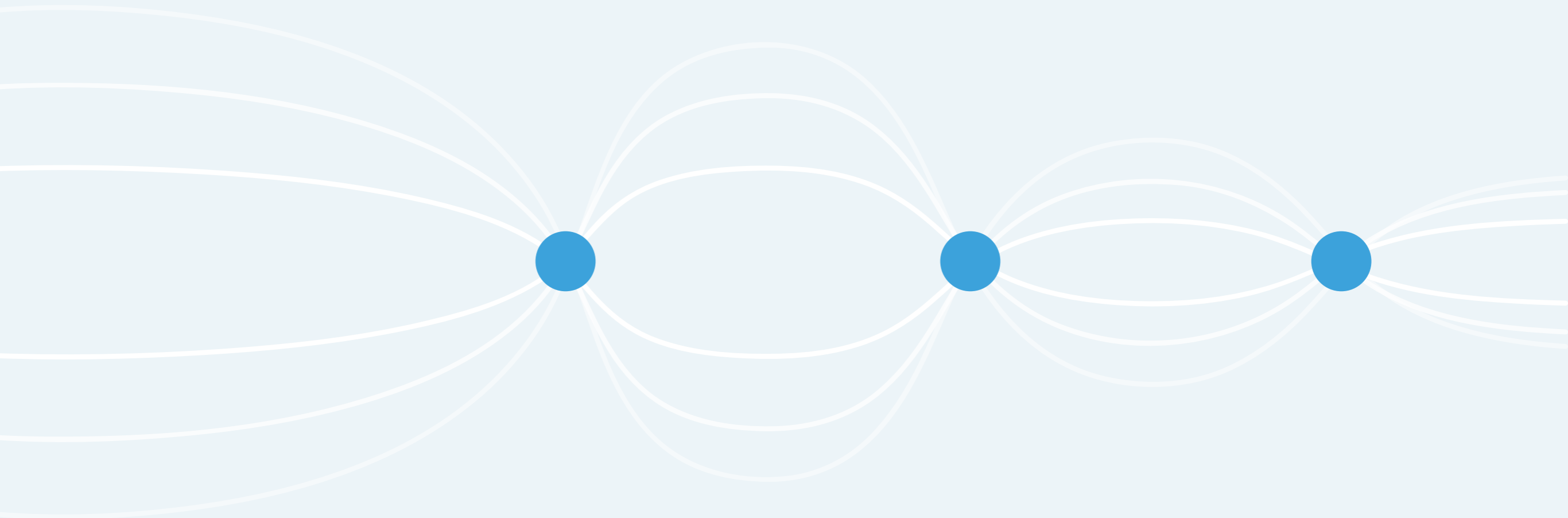
Design thinking is generally considered the ability to combine **empathy** for the context of a problem, **creativity** in the generation of insights and solutions, and **rationality** to analyze and fit solutions to the context.

Design Thinking - Process



Concept Development Process

Overview

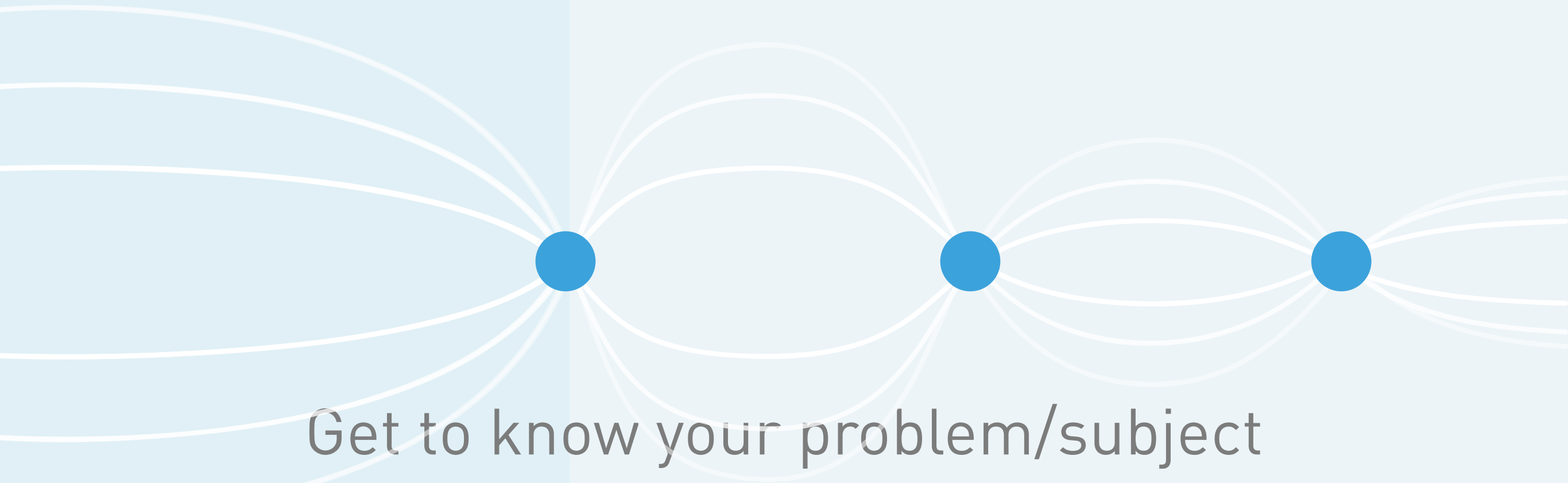


Research

Innovate


Prototype

Research



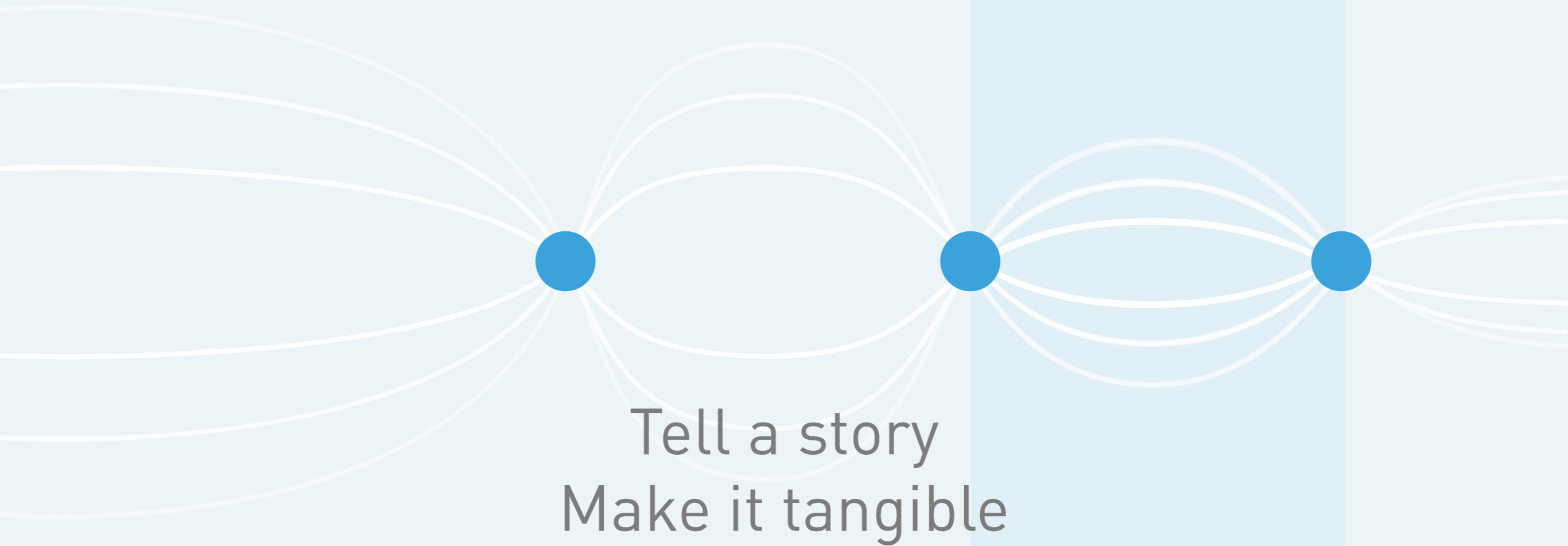
Get to know your problem/subject
Gather insights into the user and their life
Collect artifacts & impressions
Record processes

Innovate



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

Prototype



Concept Development

5 Principles

Concept Development

5 Principles

1 - Stay user/consumer focused

Look what they are doing, what their daily problems and hurdles are, focus and follow on their needs.

Try to identify their habits and their workarounds to make their lives easier.

Concept Development

5 Principles

2 - Gather a diverse team to succeed

It is always 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.

Concept Development

5 Principles

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.

Concept Development

5 Principles

4 - Short time frames

Set yourself constraints!

If you have a limited amount of time available 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 as often to the whole group or others.

Gather feedback and make use of it in the next iteration

Tool-Kits

IDEO Method Cards

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



Learn Look Ask **Try**

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.



Learn Look

Bodystorming

HOW: Set up a scenario with roles, with or without a physical environment, to explore the intuitive reactions and behaviors of the physical environment.

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

nForm

<http://nform.com/tradingcards/>

TRADING CARDS

User experience trading cards. Created for the IA Summit in 2007, 2008 and 2009.

2009 Series



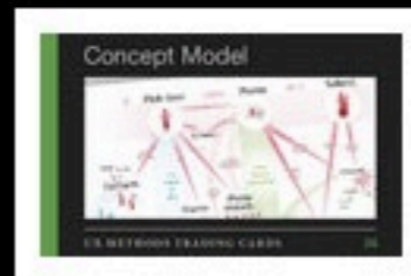
[A/B Testing](#)
#33



[Affinity Diagram](#)
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[Collaborative Inspection](#)
#35



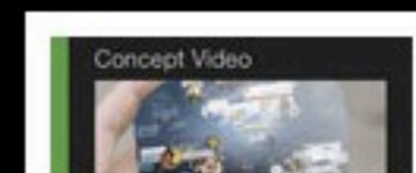
[Concept Model](#)
#36



[Diary Study](#)
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[Five Sketches™](#)
#38



Concept Development

Tool-Kit

Creative tools to solve wicked problems

Opportunity Box

Affinity Diagram

Swim-lanes

Opportunity Matrix

Solution description & validation

Business Model Canvas

Scenarios

Storyboards



Opportunity Box

Opportunity Box

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and light, blending into the background.

What?

A box to collect identified solutions, ideas and thoughts while working through the Concept Development process.

Opportunity Box

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and elegant, set against a light blue background.

Why?

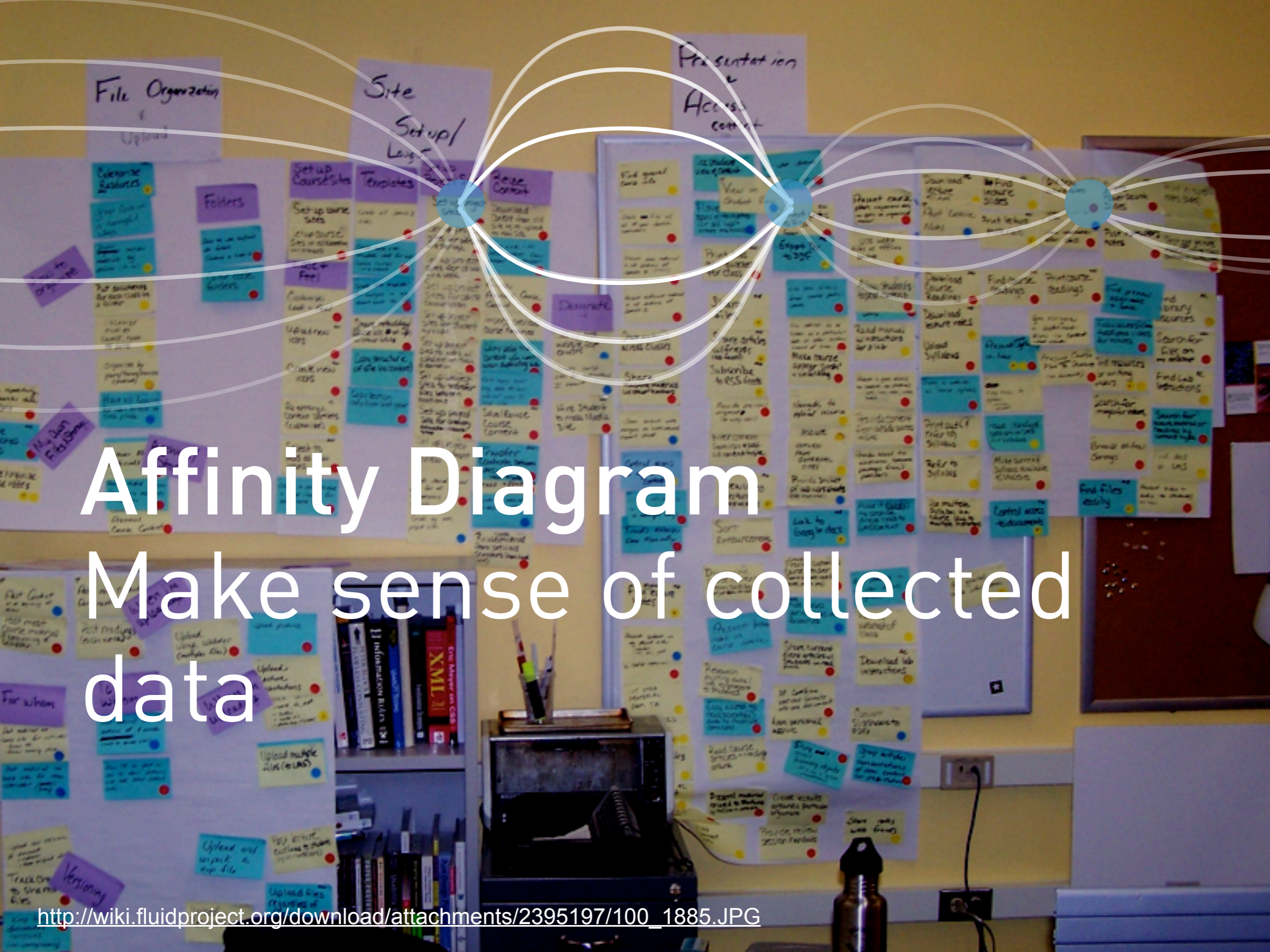
This collection replaces your memory and makes space for new things while working through the process.

Opportunity Box

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and light, blending into the background.

Guidelines

Every time you have a solution for your problem in your mind add it to the box.



Affinity Diagram

Make sense of collected data

Affinity Diagram



What?

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

Affinity Diagram



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.

The background of the slide is a photograph of a swimming pool with several lanes. Swimmers are visible in the water, creating splashes. Overlaid on the pool is a network diagram consisting of three blue circular nodes connected by white curved lines, forming a series of overlapping loops that span across the lanes.

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

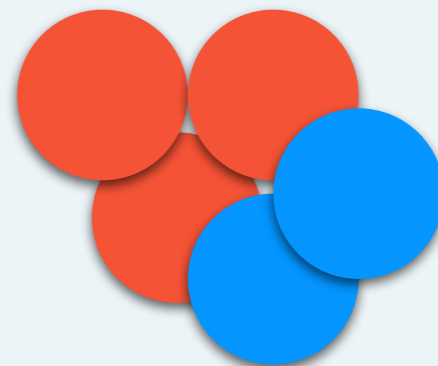
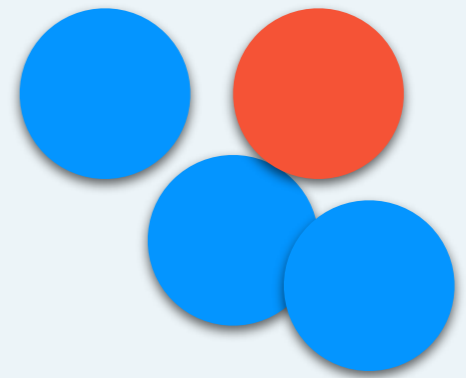
- Identify involved people, systems and tools
- Break the process into single steps/actions
- Visualize the process

BREAKOUT SESSION 1

10:00-12:30

gather back at 13:30

Opportunity Matrix



Opportunity Matrix

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and elegant, set against a light blue background.

What?

Prioritize collected ideas and features by user need and benefit to focus on the important ones.

Opportunity Matrix

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and light, blending into the background.

Why?

Used to get an unbiased outcome, as common group-based prioritization often reflects personal taste.

Opportunity Matrix

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and light, blending into the background.

Guidelines

Be as unbiased and focused on the user needs as you can.

Use the content of your solution box for prioritization.



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.

Prepare a **5 min**
presentation for **15:45**

Send slides to
Sebastian till 15:30

BREAKOUT SESSION 2

14:00 - 15:30

gather back at **15:45**

Presentations

Gather back tomorrow
at **9 c.t.**

Agenda

- 9:15 - 9:45 Recap and Tools
- 9:45 - 11:00 Breakout Session 3
- 11:00 - 12:30 Presentation
- 12:30 - 13:30 Break
- 13:30 - 14:15 Tools
- 14:15 - ... Breakout Session 4

Recap

What happened
yesterday?

r:

Designed by:

On: Day Month Year

Iteration: No.

Value Propositions



What value do we deliver to the customer?
Which one of our customer's problems are we helping to solve?
What bundles of products and services are we offering to each Customer Segment?
Which customer needs are we satisfying?

- CHARACTERISTICS**
- Newness
 - Performance
 - Customization
 - "Getting the Job Done"
 - Design
 - Brand/Status
 - Price
 - Cost Reduction
 - Risk Reduction
 - Accessibility
 - Convenience/Usability

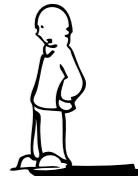
Customer Relationships



What type of relationship does each of our Customer Segments expect us to establish and maintain with them?
Which ones have we established?
How are they integrated with the rest of our business model?
How costly are they?

- EXAMPLES**
- Personal assistance
 - Dedicated Personal Assistance
 - Self-Service
 - Automated Services
 - Communities
 - Co-creation

Customer Segments

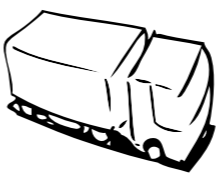


For whom are we creating value?
Who are our most important customers?

- Mass Market
- Niche Market
- Segmented
- Diversified
- Multi-sided Platform

Business Model Canvas

Channels



Through which Channels do our Customer Segments want to be reached?
How are we reaching them now?
How are our Channels integrated?
Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

- CHANNEL PHASES:**
- Awareness**
How do we raise awareness about our company's products and services?
 - Evaluation**
How do we help customers evaluate our organization's Value Proposition?
 - Purchase**
How do we allow customers to purchase specific products and services?
 - Delivery**
How do we deliver a Value Proposition to customers?
 - After sales**
How do we provide post-purchase customer support?

Business Model Canvas

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and light, blending into the background.

What?

The BMC is a way to think through your business idea in a more visual and collaborative approach than writing a business plan.

Business Model Canvas

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and light, blending into the background.

Why?

To be able to talk about your solution you need to be able to name certain aspects of its business.

Business Model Canvas

A decorative graphic consisting of three blue circles arranged horizontally. Each circle is connected to the others by multiple thin, white, curved lines that create a sense of flow and connectivity. The lines are more densely packed between the first and second circles, and between the second and third circles.

Guidelines

Be creative and honest!

Try to fill out each business aspect as good as you can to gain a good understanding of your business.

Prepare a **5 min**
presentation of your **BM**
for **11:00**

Send slides to
Sebastian till 10:50

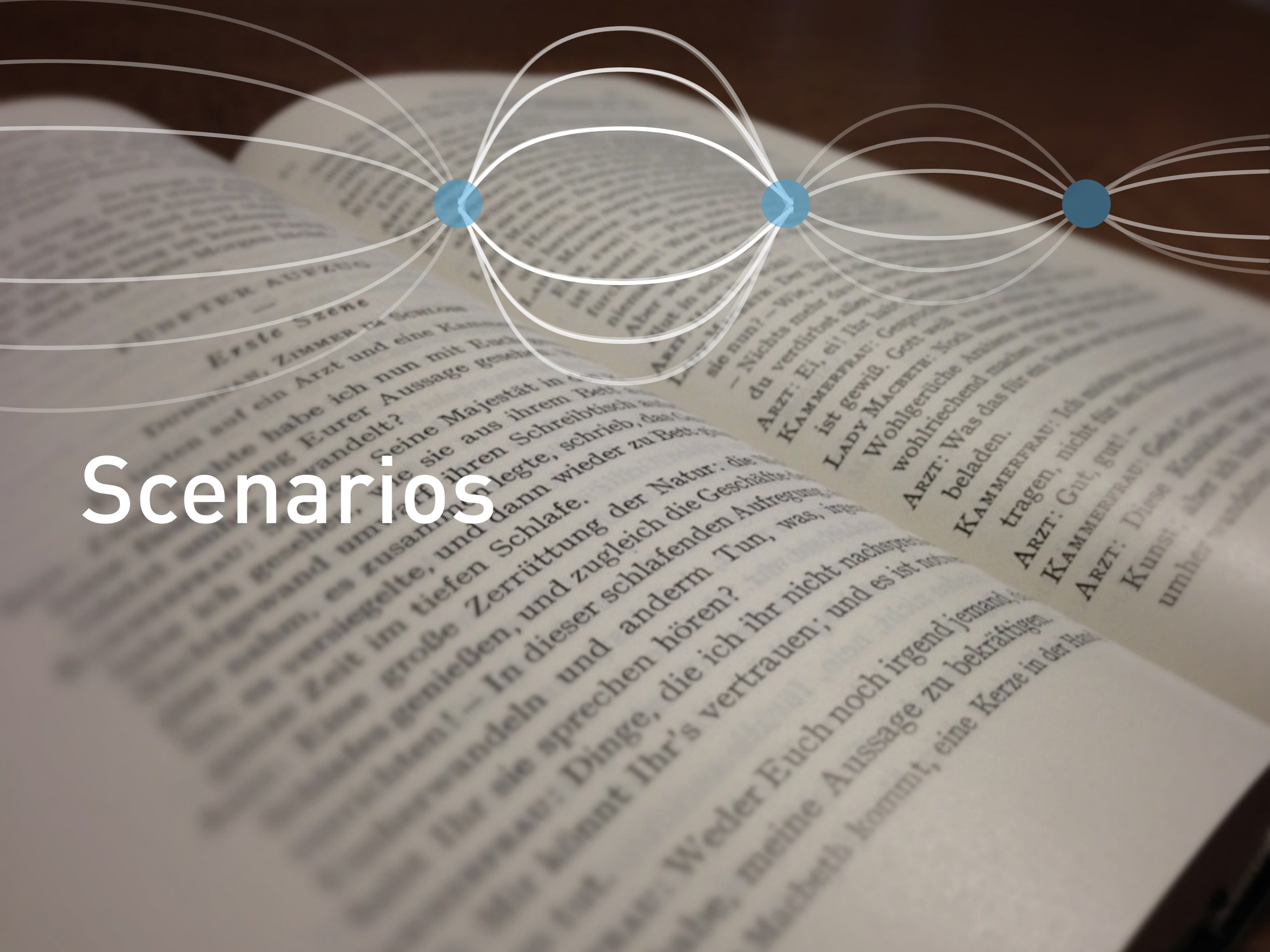
BREAKOUT SESSION 3

9:45 - 11:00

Presentations

Gather back at **13:30**

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

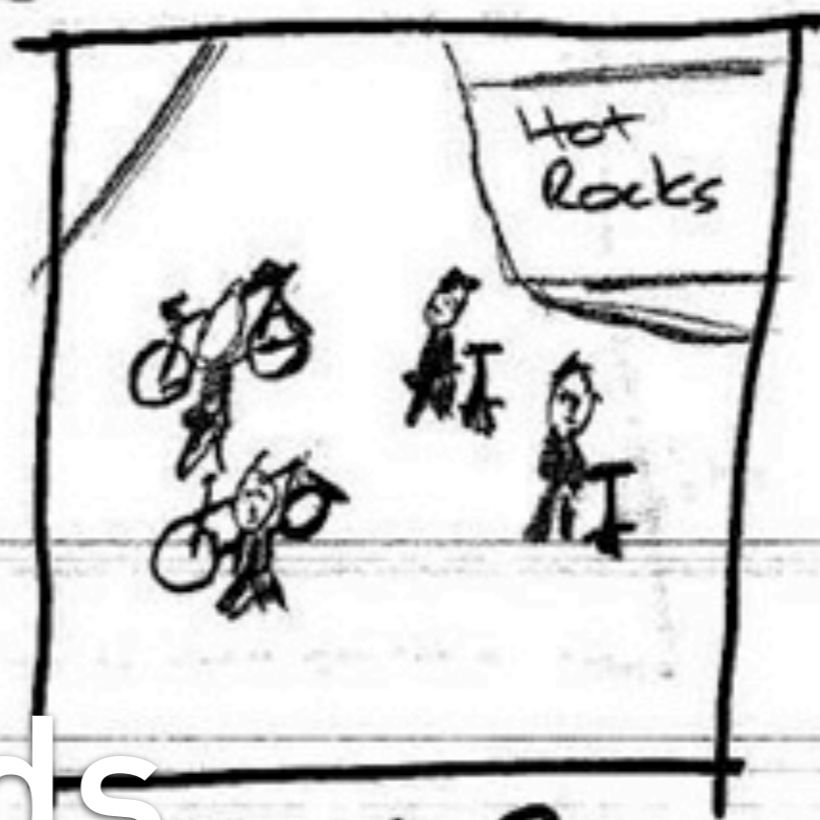
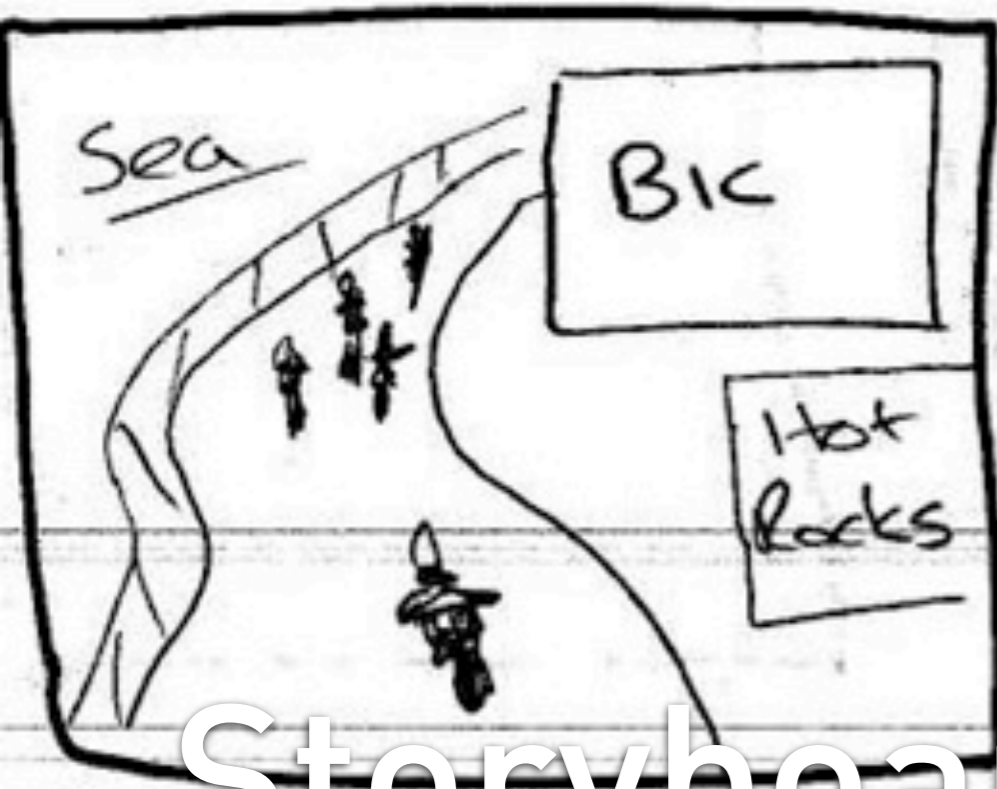


Guidelines

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.

Viral Video Storyboard (modified due to location)



Storyboards

Shot 1

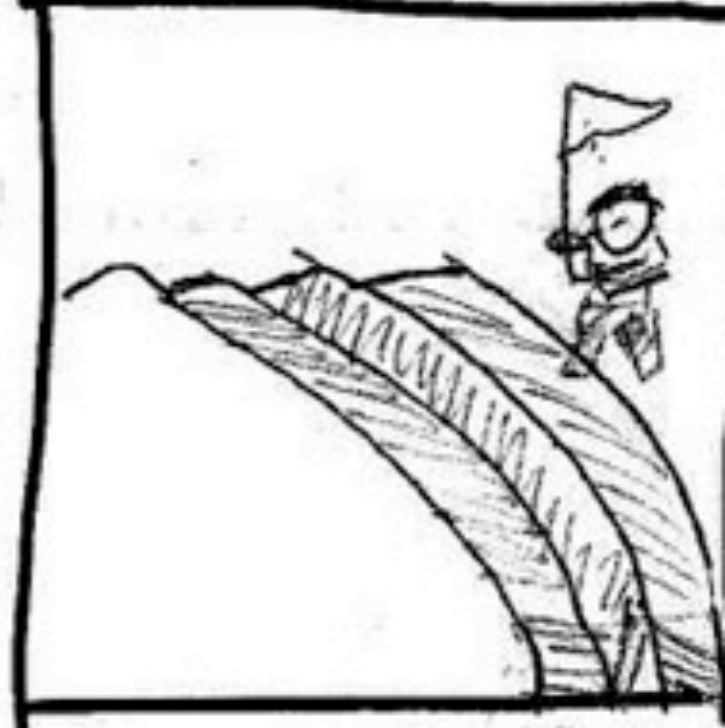
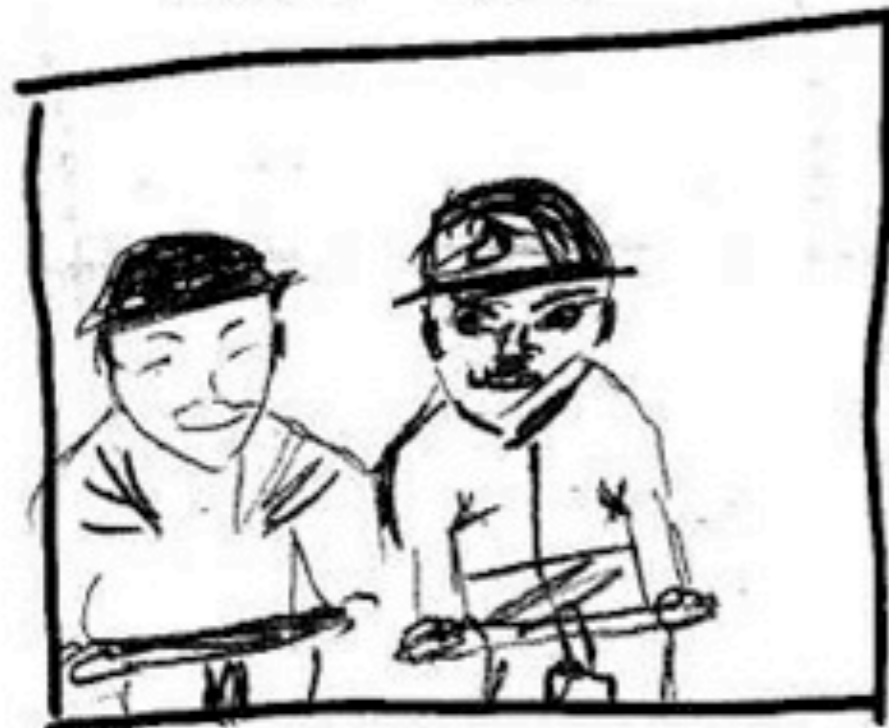
Note: Zoom out as cyclos come down the hill.

Shot 2

Note: As the cyclist walk thier bike around us filming.

Shot 3

Note: Close up of the Flay Carrier following the car.



Storyboards

A decorative graphic at the top of the slide features three blue circles arranged horizontally. Each circle is connected to the others by multiple white, curved lines that create a sense of flow and connectivity. The lines are thin and elegant, set against a light blue background.

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.

Mid Presentation (tmr)

5 Minutes + 5 Q&A with Guests

- Present the Process
- User Research and User Group, Problem Space
50 %
- Concept & 6 Keyframe Storyboard
50 %

Deliverables:

Deadline UniWorX 13.03.13 9:00

-PDF Slides

Send 3 Photos “User Research” 12.03.13 17:00

-E-Mail to Sebastian