INF03 User Experience Design

4. Approaches to UX

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Plan for today

Rewind to homework 1

Lecture: Approaches to UX

Wrap up interview analysis

Brainstorming

Rewind to homework 1

Groupes de 3 (15 minutes)

Retour sur le rendu de l’exercice essayer de faire une synthèse commune de vos rendus.

Focus sur :

- Vos accords
- Les blocages dans la synthèse
- Les angles morts identifiés après 1 mois de cours

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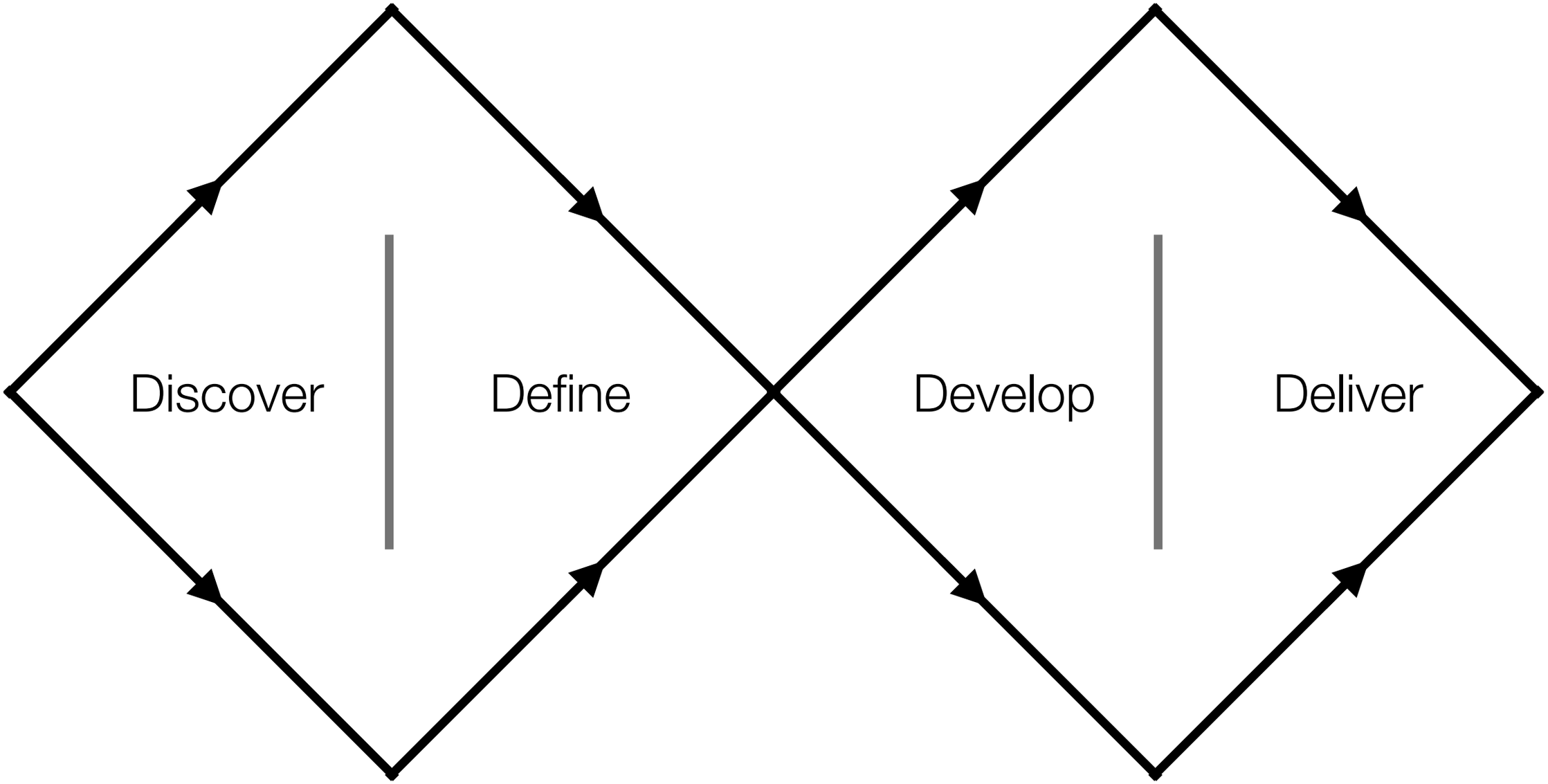
Approaches to UX

1. General approach
2. User centered design (UCD)
3. System Design
4. “Genius” design

Double diamond



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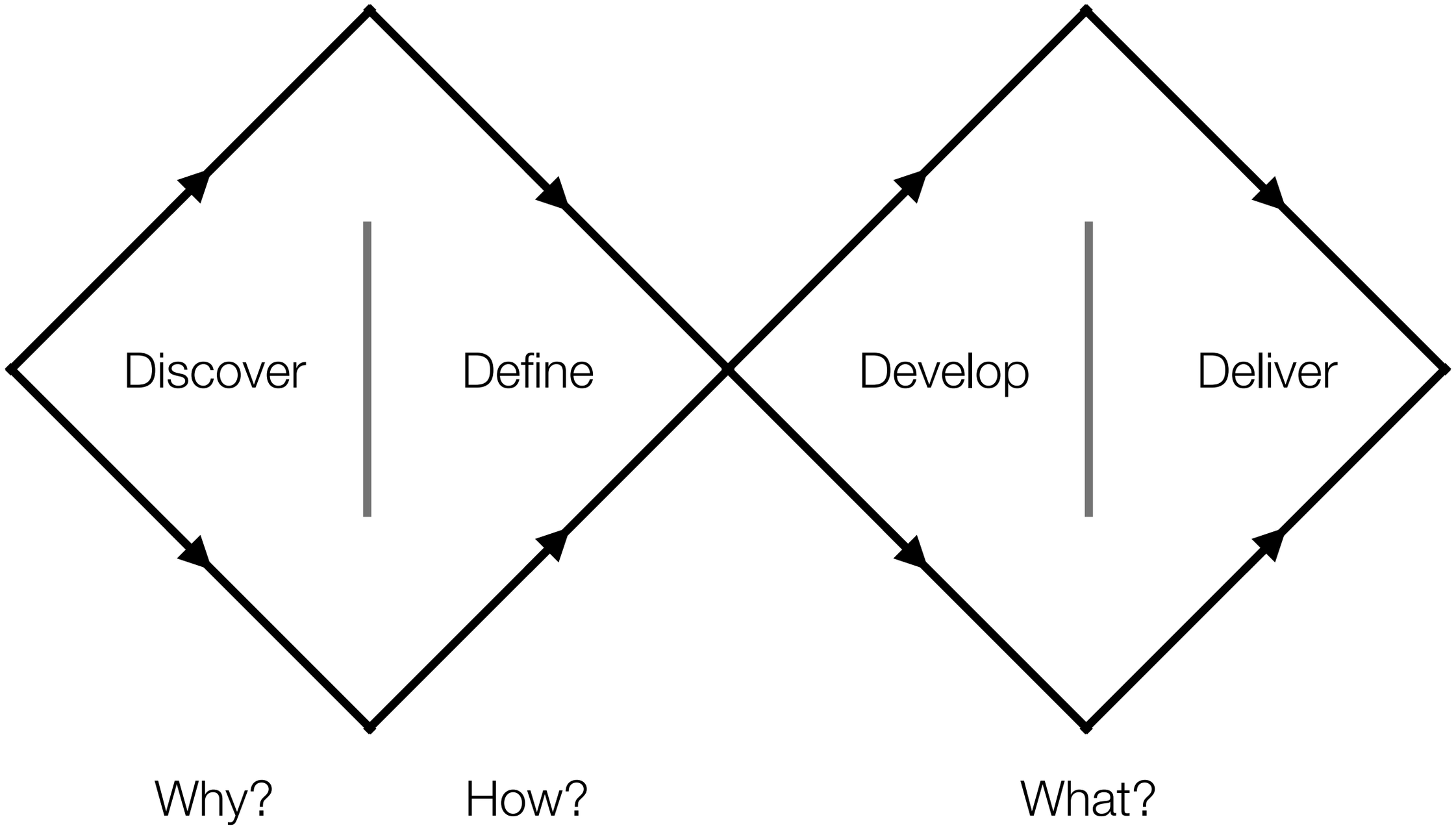

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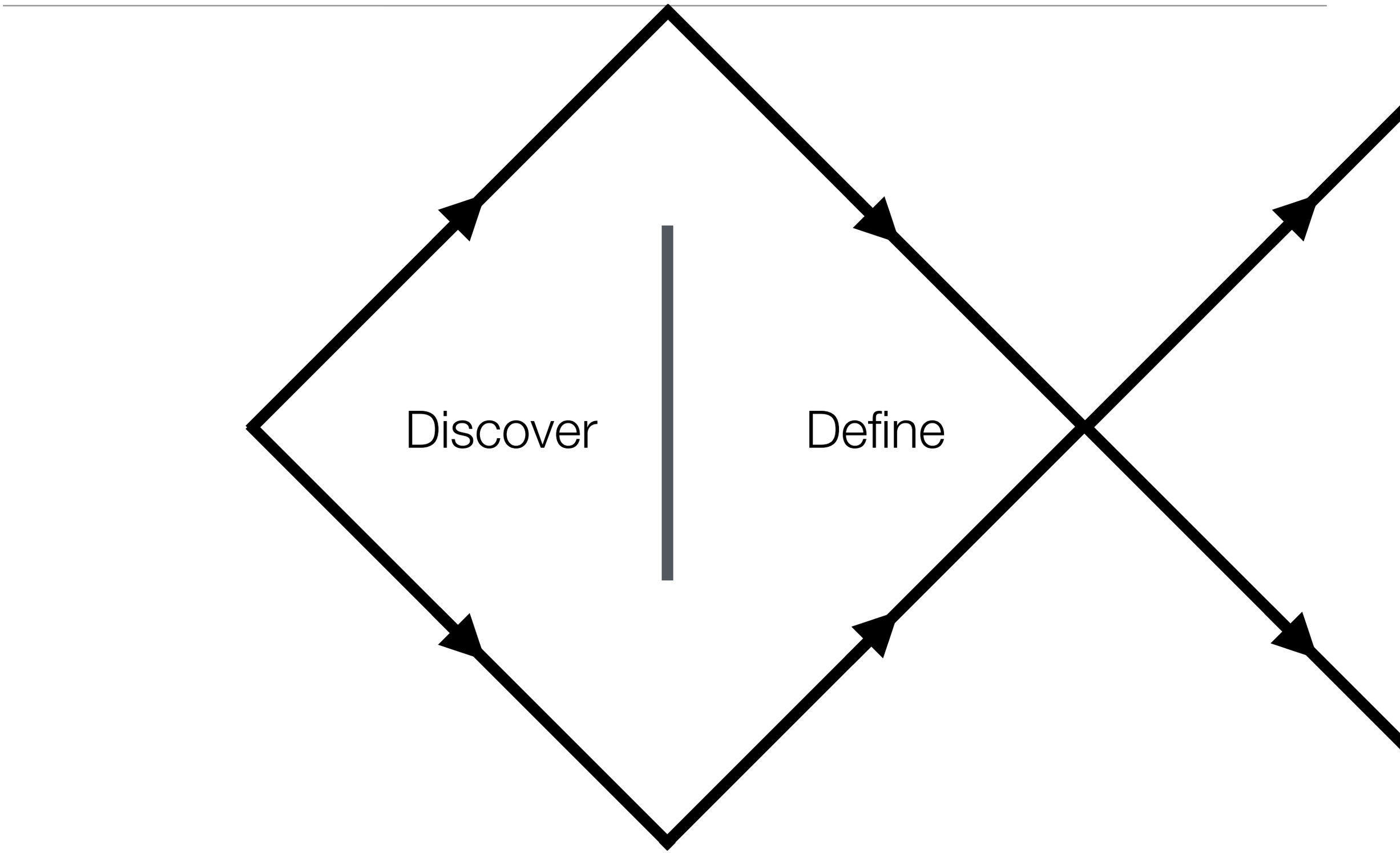

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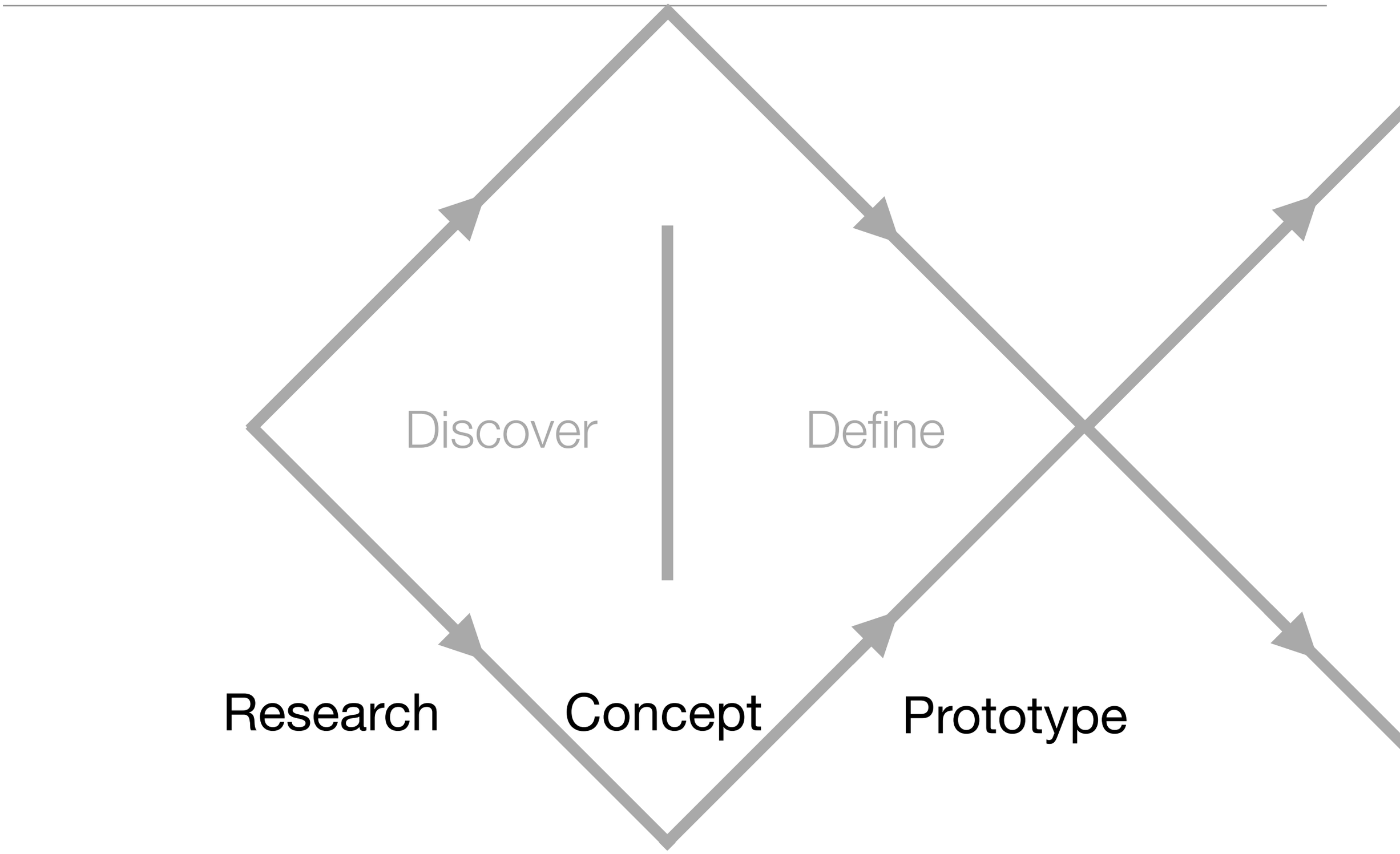


Questions influencing the approch

What are designers' goals?

- practice or research

What is the role of designers?

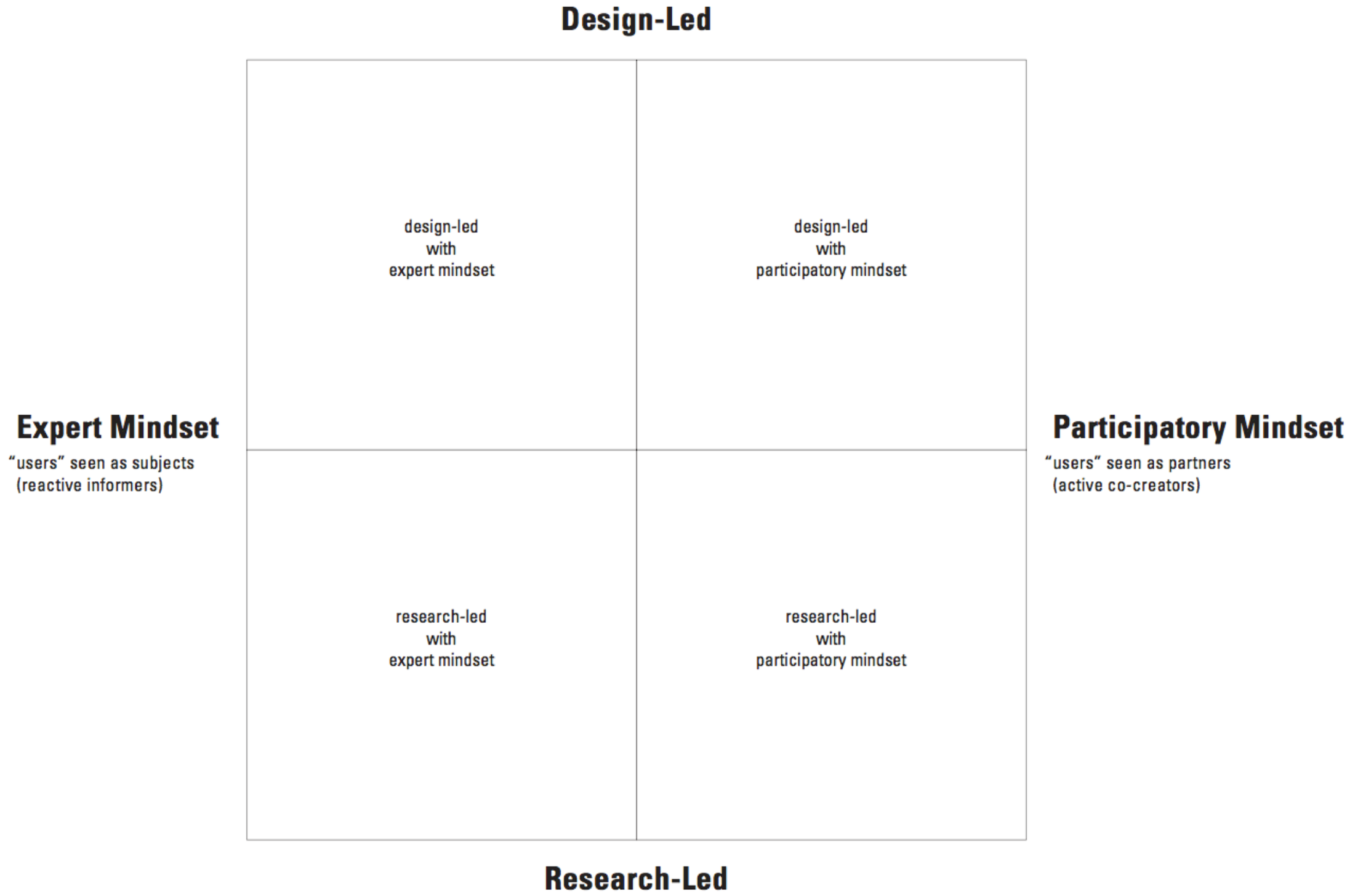
- expert or facilitator

What is the role of users?

- client or participant

Dimensions

Sanders, E. An Evolving Map of Design Practice and Design Research. In ACM Interactions 15,6 2008



Approaches to UX

- Can be used in a wide variety of settings: health systems, Web sites, système de santé, site Web, électroménager…

- Switch approach depending on context
- Combine approches when needed

- Complex situations can be improved by leveraging various approaches

Approaches to UX

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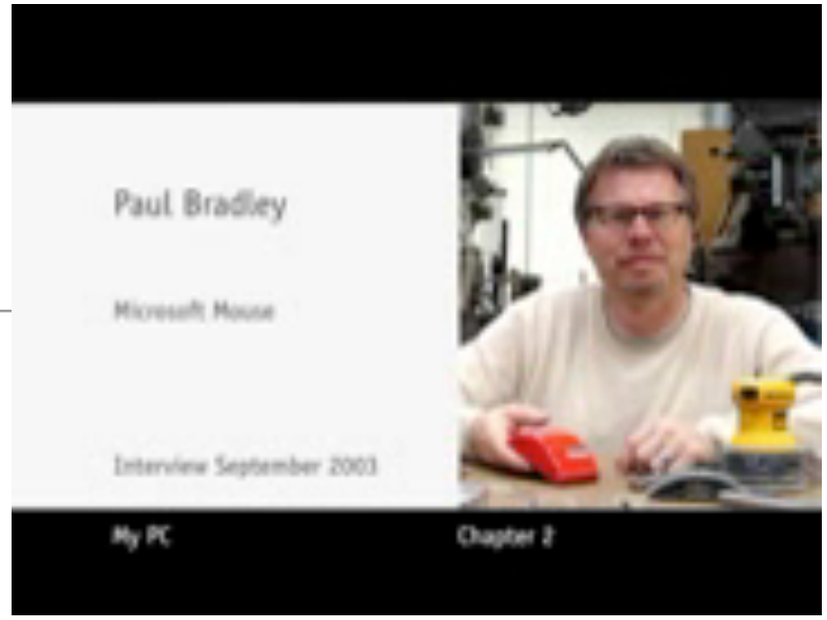
The Microsoft Mouse



Paul Bradley

- Design the “Microsoft Mouse”
- Follows a user-centered process
- Helps designers develop prototypes at IDEO

User centered design

Philosophy : Users know best.

- People using products know their needs, goals and preferences better.
- **Designers are not users**
- User involvement in every phase of the design process
- Roots in industrial design and human factors
  see H. Dreyfuss book “Designing for People” (1955)

User centered design

- Long ignored in computer-related design
- Slowly gains importance with the development of personal computers.

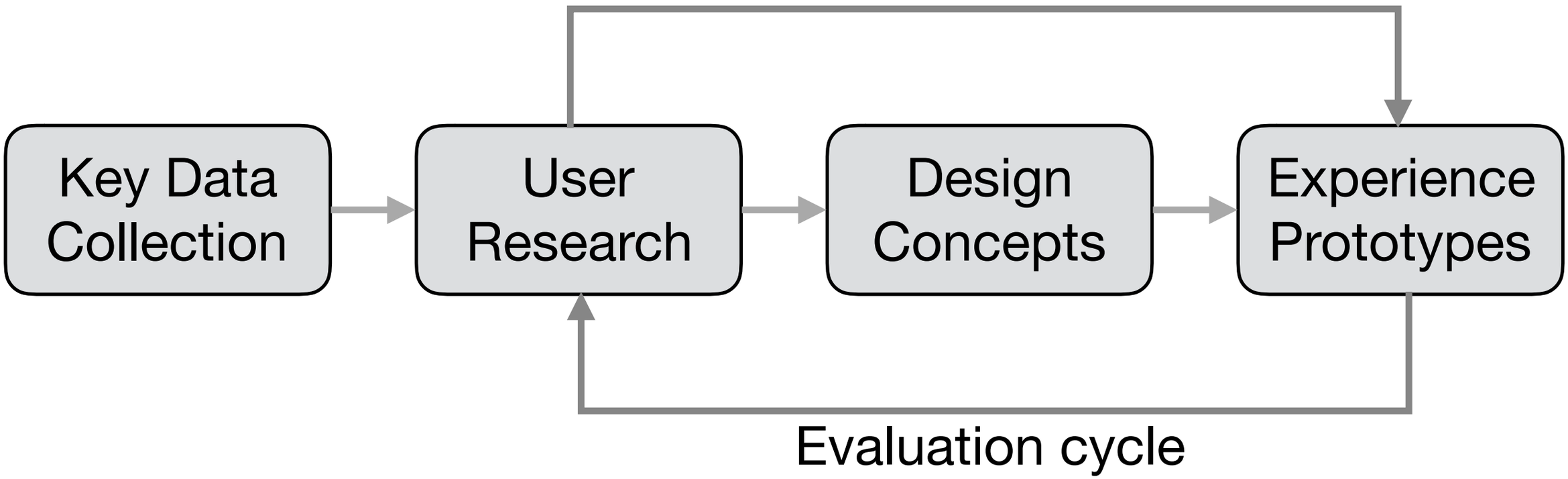
Basic principles

Initial focus on users and their tasks: cognitive and behavioral aspects, social ones…

Empirical approach: observe and analysis of users' reactions and performances with scenarios or prototypes.

Iterative design: identify quickly problems to fix them early.

User-centered process



Approaches to UX

1. General approach
2. User centered design (UCD)
3. **System Design**
4. “Genius” design

Computing levels as discipline perspectives

Level	Examples	Discipline
Mechanical	Hardware, motherboard, telephone	Engineering
Informational	Programs, data, bandwidth, memory	Computer science
Personal	Semantics, attitudes, beliefs, feelings, ideas	Psychology
Community	Norms, culture, laws, zeitgeist, sanctions, roles	Sociology

https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/socio-technical-system-design#toc_2_3

Motivation of system design

Most engineering approaches (and some design ones) are reductionist:

- *a complex system is nothing but the sum of its parts*

Yet most complex systems are more, especially due to:

- Openness
- Connectivity
- Self-Organization
- Adaptation & Evolution

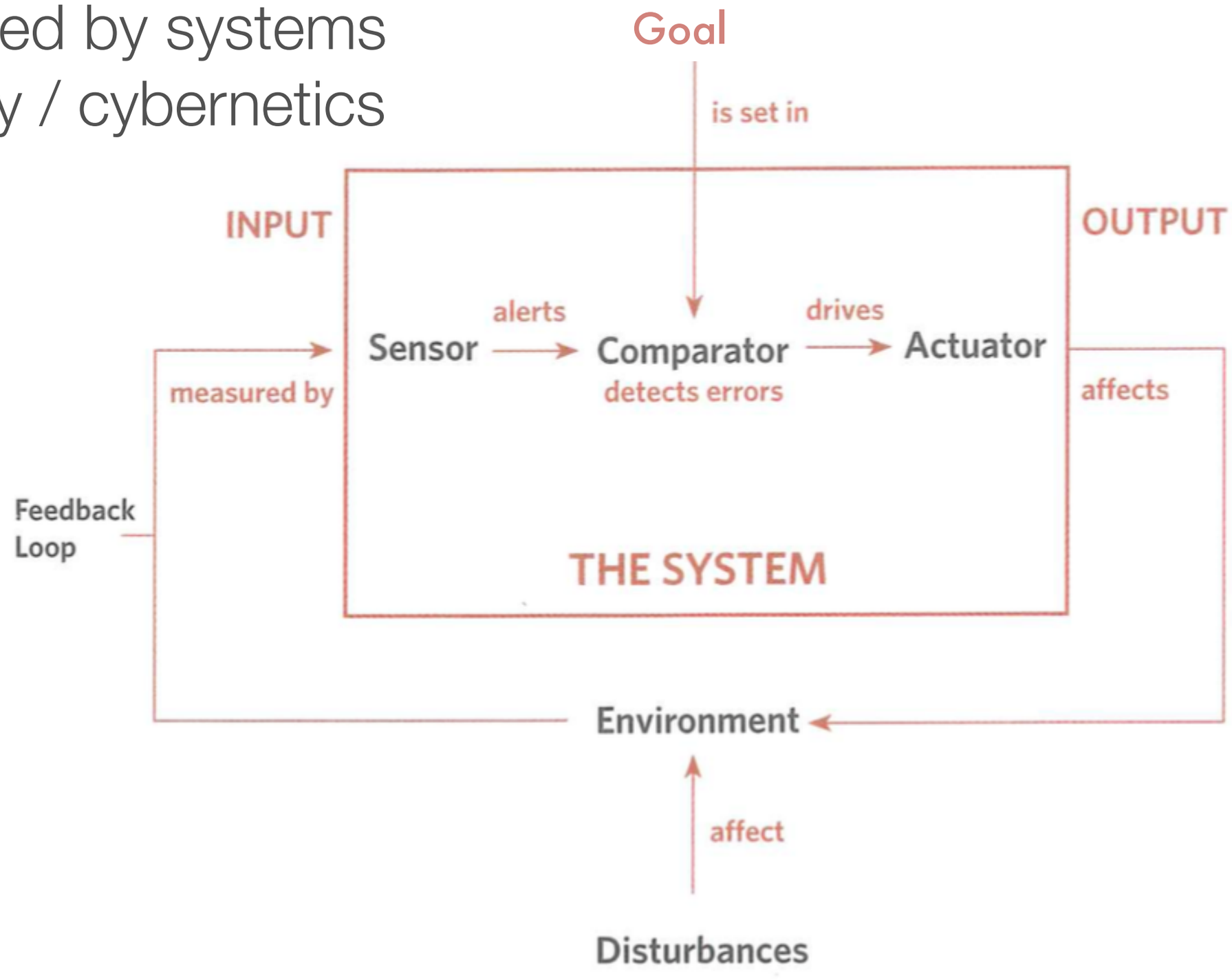
What works at the micro level doesn’t at the macro level.

System design

- Analytical approach
- The elements (humans and technical) interacting with each other are at the center of the design process.
- Systems can be simple, e.g., heating, or complex, e.g., transportation network.
- Especially useful on complex system involving a large number of actors.

System design

Inspired by systems theory / cybernetics



Applications of system design

- Information architecture
- Service design
- Emerging field: infrastructure design, e.g., smart cities.

More broadly :

- Focusing on context of use and the interactions between various components (human or technical) enables designers to better understand the product or service being designed.

Approaches to UX

1. General approach
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3. System Design
4. **“Genius” design**

“Genius” design

- Design relies almost solely on the wisdom and experience of the interaction designer making the design decisions.
- Probably best practiced by experienced designers who have encountered several types of problems and can draw solutions from previous design issues

http://upload.wikimedia.org/wikipedia/commons/1/11/IPod_family.png

Jonathan Ive

http://www.loopinsight.com/wp-content/uploads/ive.jpg

Other approaches

- Participatory design / co-design
- Critical design
- Task centered design
- Activity centric design
- …

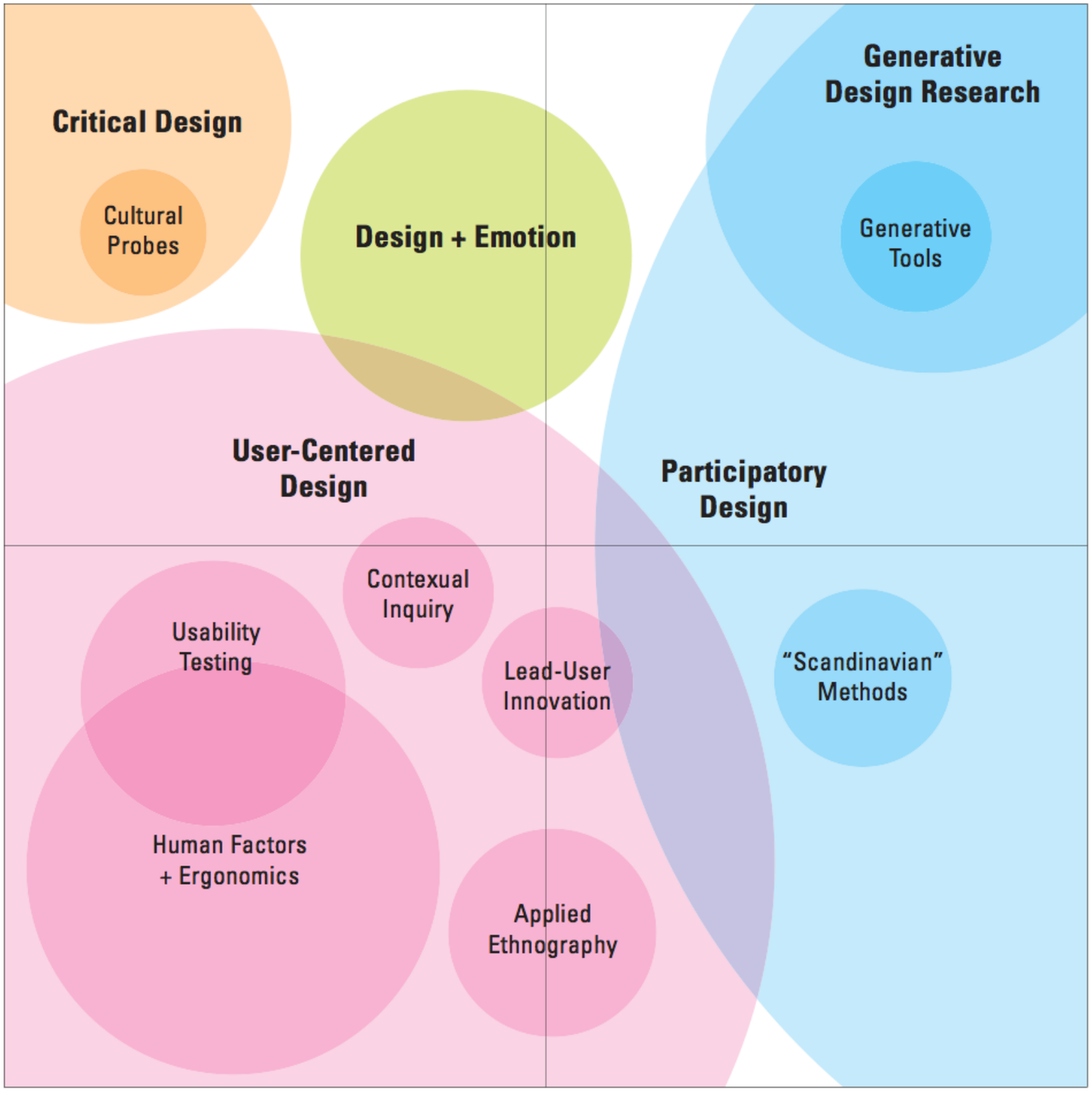
Design-Led

Expert Mindset

"users" seen as subjects
(reactive informers)

Participatory Mindset

"users" seen as partners
(active co-creators)



Research-Led

http://subdomain.marinakano.com/mdpthesis/download/sanders_evolvingmap.pdf

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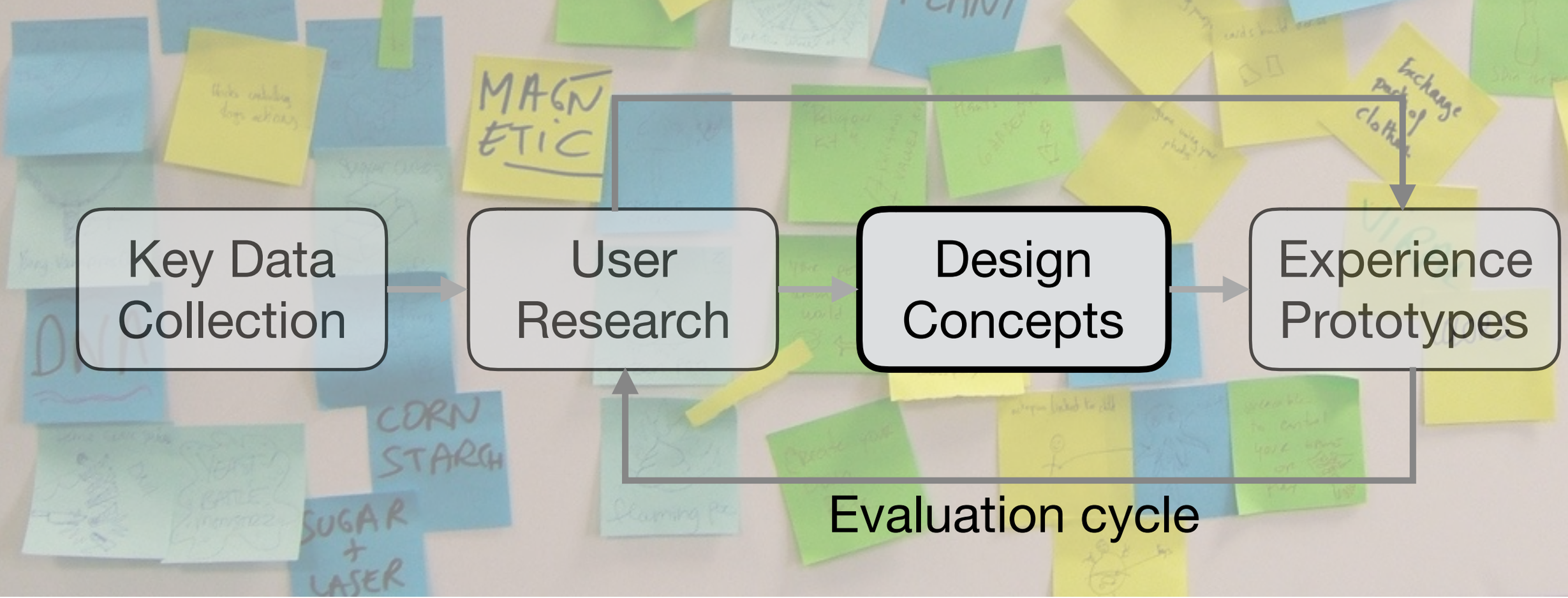
Generating ideas



Brainstorming

- Group creativity
- As many ideas
- Limited Time
- Record

from S.Klemmer, Stanford HCI group, CS147

Brainstorming rules, according to IDEO

- Defer judgement -> no criticisms
- Go for quantity -> number your ideas
- Encourage wild ideas -> at least a '*stupid*' idea/ person
- Be visual -> draw, sketch, enact
- Build on the ideas of others -> no criticisms, improve
- One conversation at a time -> 1 moderator
- Stay focused on the topic

Brainstorming

Goal:

- Get a maximum of ime - 20 to 60 minutes.

Mieux expliquer l'objectif de l'activité

Procedure:

- 1 moderator - 1 scribe
- Identify major points
- Narrow down to concrete ideas
- Everybody votes - pick 3 "bests" ideas

Don't criticize, Propose