Systemic Design Taster Session

Systemic Design Community of Practice
February 28, 2017

CoLab.
Complexity navigation | Collaboration | Co-design | Co-creation

How we will be Together Today

- Separate the idea from the person
- Engage elephants in the room
- Progress not prefection
- Avoid fields; jump fences
- Acknowledge the past; create the future
- Yes, and...
- Embrace your spirit animal!
- Keep asking why

optimistic

empathic

holistic

what if?

collaborative

thinking like a designer

Doodle graphic by Ayse Birsel

Systems Thinking is a way of looking at the world

→ From multiple perspectives
→ Across multiple scales
→ Dynamically over time

A shift from looking at things to looking between them

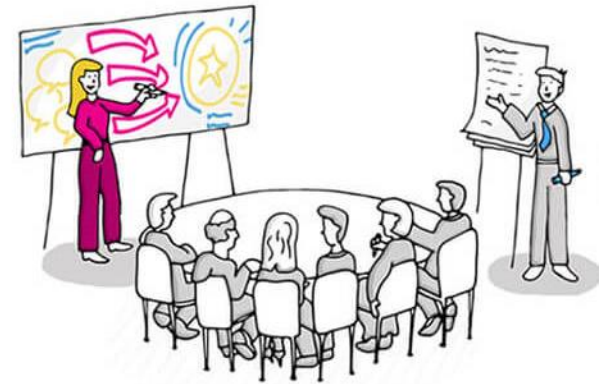# Systems Mapping Exercise

Time: 30 minutes

Groups: 5-6 people

Instructions:

- Choose a system mapping method to create your map.

- Use your creativity and knowledge to create a systems map.

What is Systems Thinking?

"A system is an interconnected set of elements that is coherently organized in a way that achieves something (function or purpose.)"

– Donella Meadows

???

= COFFEE BEAN SOURCE

= PAPER SOURCE FOR CUPS

= SUGAR SOURCE

STARBUCKS STORES
BY COUNTRY
2003

1 - 24
25 - 99
100 - 249
250 - 999
1,000 +

THE MAGIC BEAN SHOP

A single cup of Starbucks coffee can depend upon as many as 19 different countries. Between the coffee beans, the milk, the sugar, and the paper cup, Starbucks coffee is a global hub that connects some of the poorest countries in the world with some of the wealthiest.

6,200 STORES WORLDWIDE, WITH THREE NEW STORES OPENING DAILY
Sources: Starbucks.com, US Department of Agriculture, Fortune Magazine

NUMBER OF STARBUCKS SHOPS WORLDWIDE

6000
5000
4000
3000
2000
1000

1987   1991   1995   1999   2003

8

Sebuah pengalaman
nyata dari kedai kopi
legendaris

RAW MATERIAL PROVIDER | COFFEE INDUSTRIES | INTERACTION CAFETERIA-CLIENT

Coffee Processing Peeling & Roasting

Milk & Sugar / Ceramic Cup

Client asks for a Coffee

Client Pays

Pesticide Producer

Distributor sends order to Producer

Packaging & Distribution

Cafeteria Places order to distributor

Fertilizer Producer

Waste to Fertilizer

Waste to Landfill

BACK OFFICE   Material/Electricity   Information Flow   Coffee Final   Other Material Flow   Money Flow

10

Mental Models

Purpose

Boundaries

Relationships

Elements

1. Look for Interconnections

Systems thinking is a shift in perspective from looking at things to looking between them
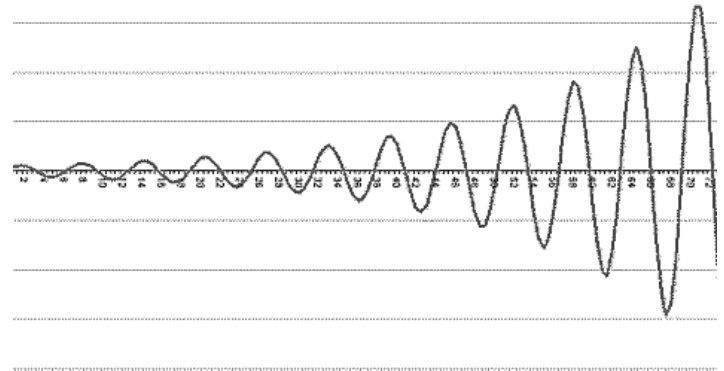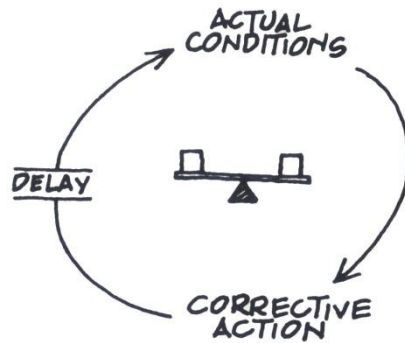
2. Embrace Complexity

Systems thinking provides tools for mapping the mess to make sense of the complexity
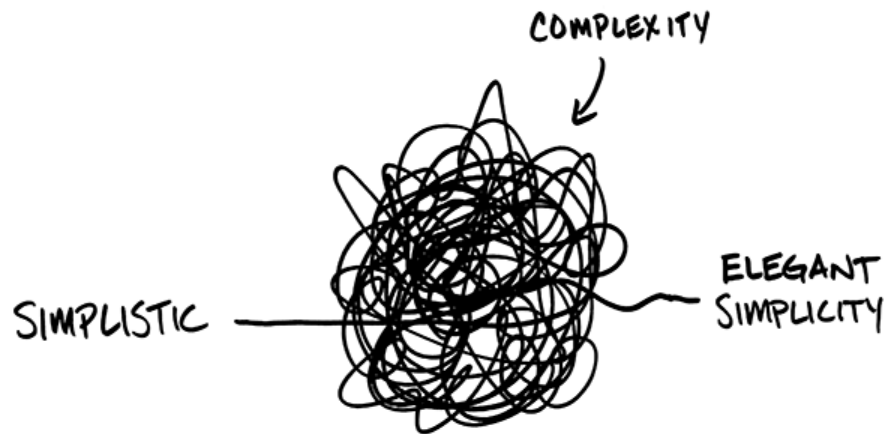
3. Engage Multiple Worldviews

Systems thinking engages with multiple perspectives and worldviews to look at the same situation in different ways
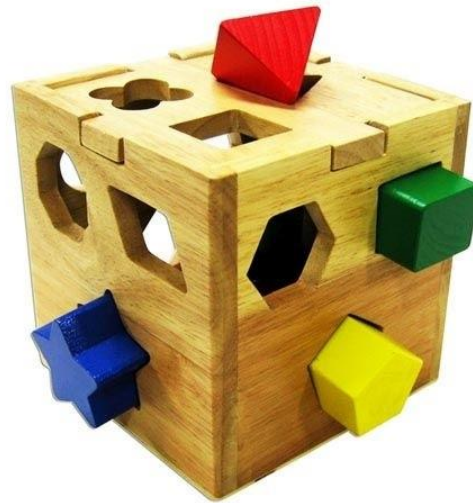
4. Take an Adaptive Approach

Systems thinking may not get the perfect answer the first time but is oriented towards learning and adapting to iteratively improve the situation

Design Thinking

A people-centered, iterative approach to innovation that involves designing alongside people affected by a complex challenge

User experience

Design

Observing real people in context, engaging extreme users, beginning with what is desirable, thinking with your hands, testing ideas early and often through prototyping

Human Centred Lab Process

1. Empathy
2. Define
3. Ideate
4. Prototype
5. Test

Desirable

Viable

Feasible
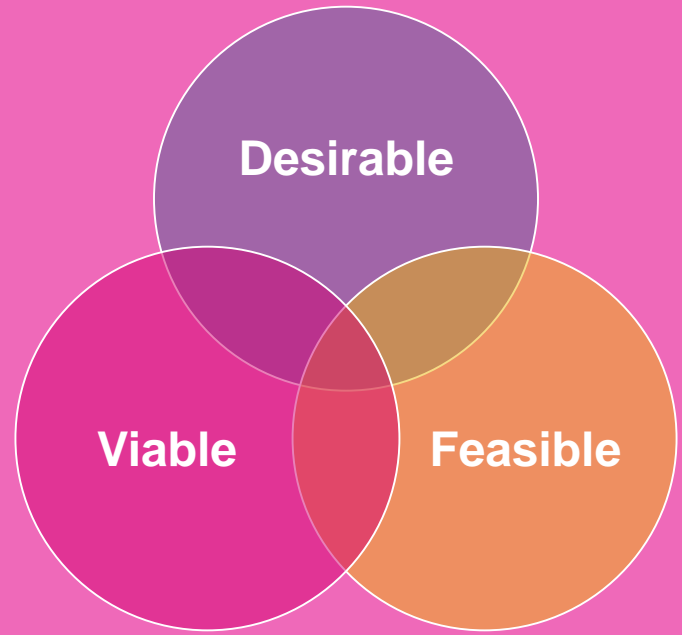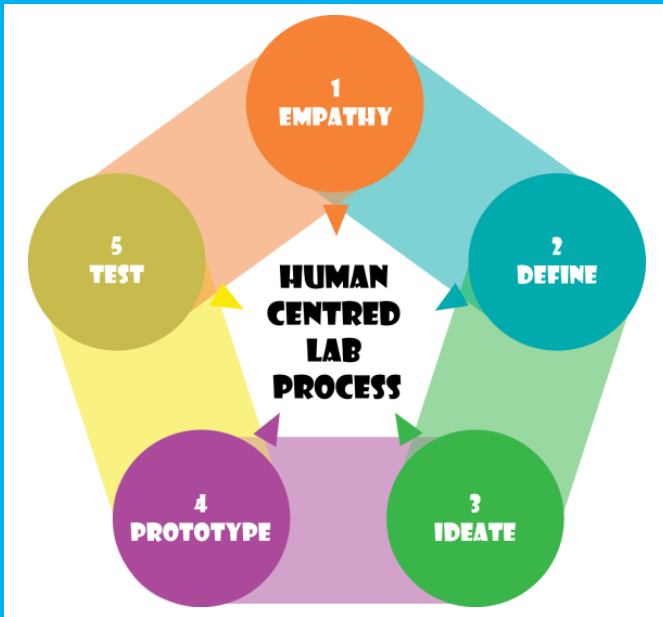
Understand
Understanding ends in **Insight**.

Create
Creation ends in **ideas**.

Deliver
Delivery ends in **reality**.
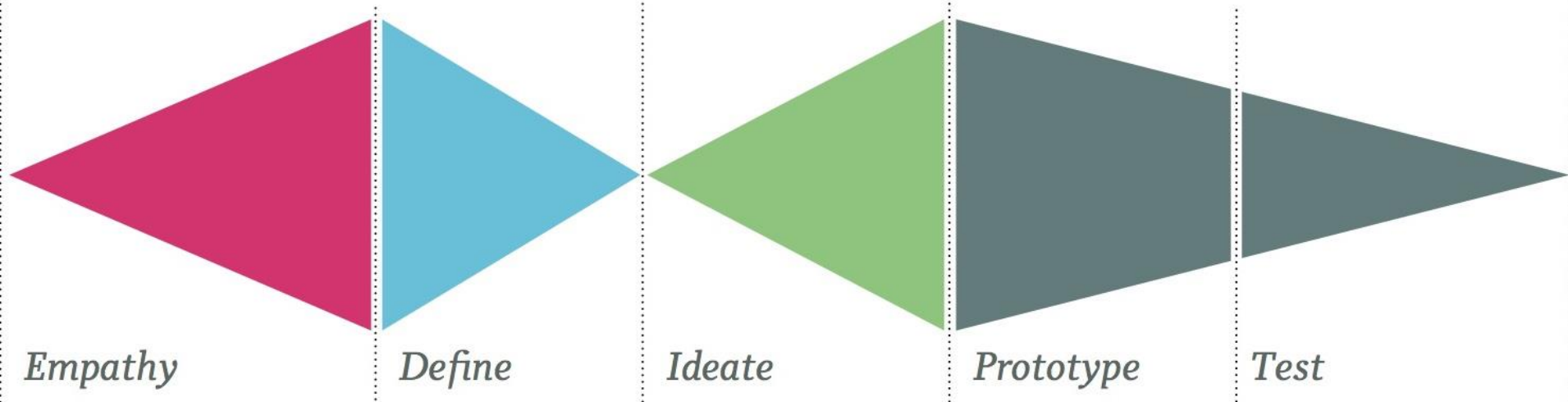
Empathy | *Define* | *Ideate* | *Prototype* | *Test*

Source: nesta (2017) based on 'Design Research and the New Learning' by Richard Buchanan   18

Design Thinking Exercise

Step 1: Individual Generative Brainstorm

"What ways can I bring what I have learned today back to my team?"

Instructions

1. Individual Brainstorm: 2x5 Minutes
2. Partner Up and Share: 10 Minutes

Criteria:
1. Encourage Wild Ideas
2. Defer Judgment
3. Go for Quantity

Step 2: Creating Your Prototype

Time: 25 Minutes
Instructions:
1. Finalize your concept;
2. Select a prototyping method;
3. Create your prototype!

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Storyboard

- Create a visual story, much like a comic strip, that tests how an idea would impact people on your team over time.

Steps

1. Before you begin discuss as a group:
   - Who are the main characters in the story?
   - What specific challenge is being solved?
   - What steps do they go through?

2. Draw four storyboard frames on a piece of flip chart paper. Write a few words below each frame to describe what should happen in the scene.

3. In each frame illustrate:
   - First Frame: Introduce the characters and issue;
   - Second Frame: Create a scene that shows the problem or issue in action;
   - Third Frame: Create a scene that depicts your idea being used or implemented in action;
   - Fourth Frame: Create a scene that shows what happens after the idea is used…what is the resulting impact?

4. At the bottom of your storyboard indicate what you hope to learn if your idea fails; as well as what catastrophic success would look like.
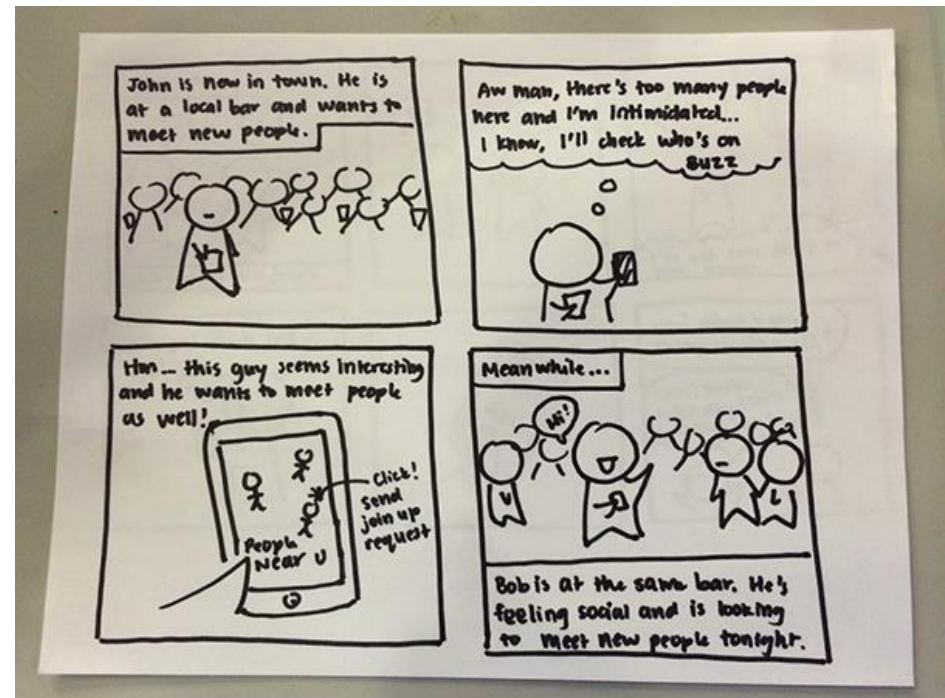
Create a Skit!

- Use characters, scenes, and conversations to tell a meaningful tale about your idea to an audience.

Steps

1. As a team take 5 minutes to think about:
   o **Conflict**: What problem/issue you are seeking to address;
   o **Concept**: What is your idea and how will it help the problem situation?
   o **Character:** Who are the people helped by your idea? How are they helped?
   o **Conclusion:** What does the work environment look like once your idea has been implemented? How is this different from the previous environment?

2. In 15 minutes create a 3-5 minute skit that depicts the above information.

3. Take 5 minutes to rehearse your skit and give it a title.

Physical Prototyping

- To challenge designers to build and think of their ideas as physical representations early on in the design process

Steps
1. Explore the physical prototyping materials at the back of the room.

2. Grab materials and begin building: think through doing.

3. Your model does not have to be a physical product: it can be a metaphor for what you hope to achieve; it can depict a process you want to employ and how it may play out, etc.

4. Once complete develop the story of your prototype: what is it and what is it seeking to achieve?

So what is Systemic Design???

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Systemic Design

Systemic Design evolved from the unique historical trajectories of systems thinking and design thinking.

Systems Thinkers

- High level of abstraction
- Light on Action
- Zoom Out
- Seeing Interconnections
- Identifying Leverage Points

Designers

- Action Bias
- Learn by Doing
- Zoom In
- Prototyping

Systemic Design

- Needs Integrative Thinking (No Binaries)
- Constantly Zooming In & Out
- Inherently Co-Creative
- Requires Great Facilitation!

26
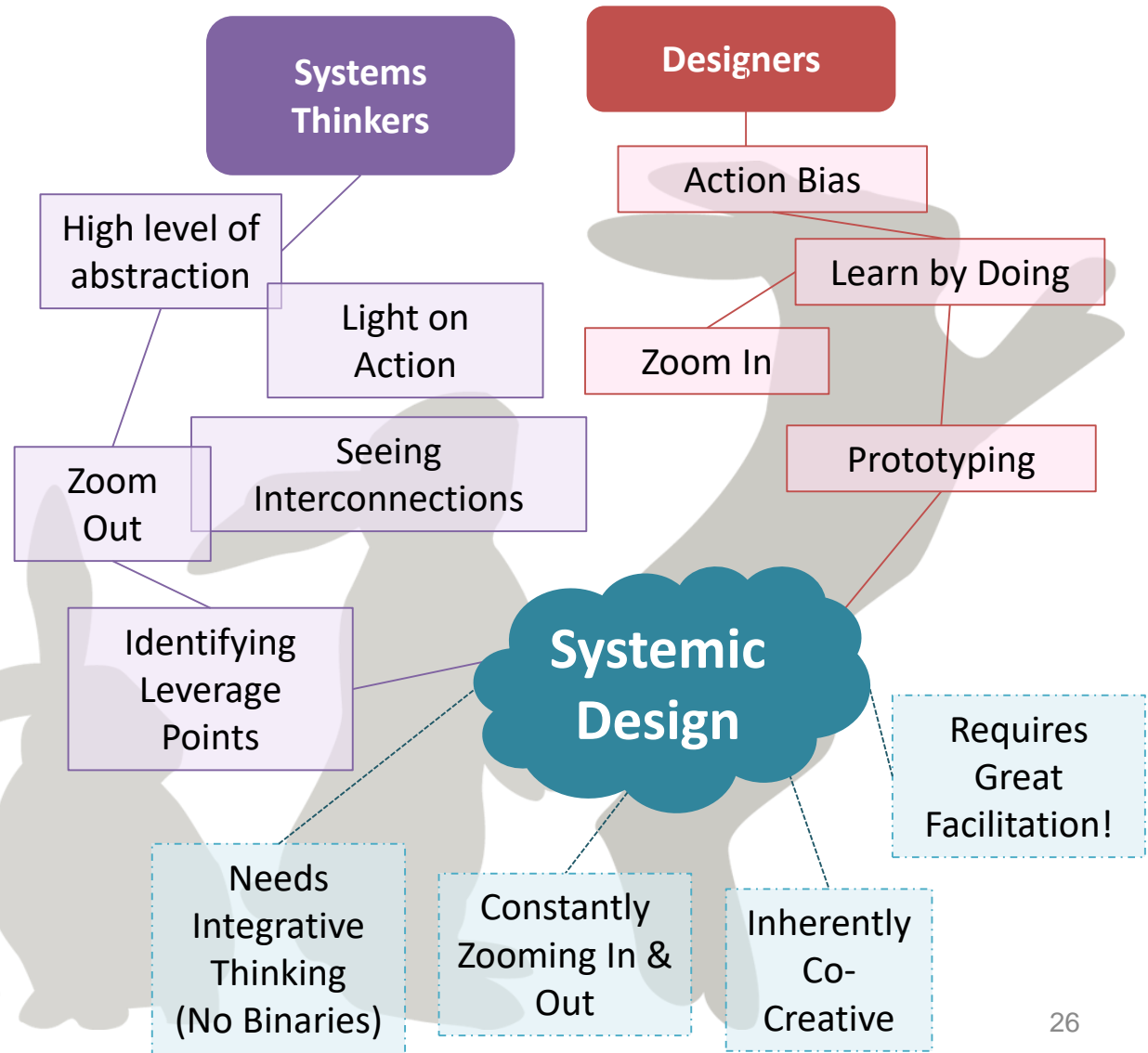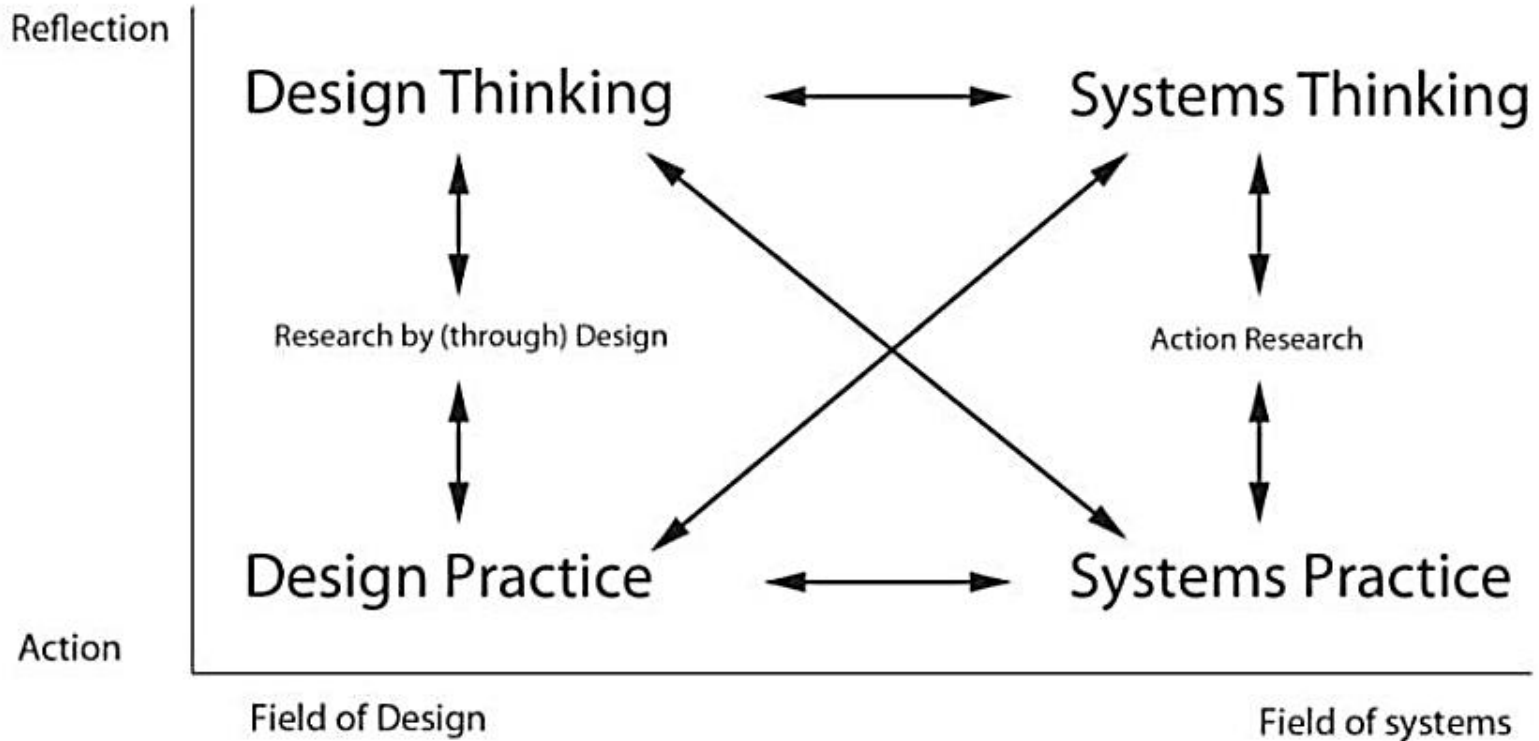
Systemic Design

Field of Possibilities, Birger Sevaldson. Reproduced with permission.

The Value of Systemic Design

Appreciate more of the complexity and diversity of a messy situation

Provide more innovative and robust options to decision makers

Bridge the policy / implementation gap

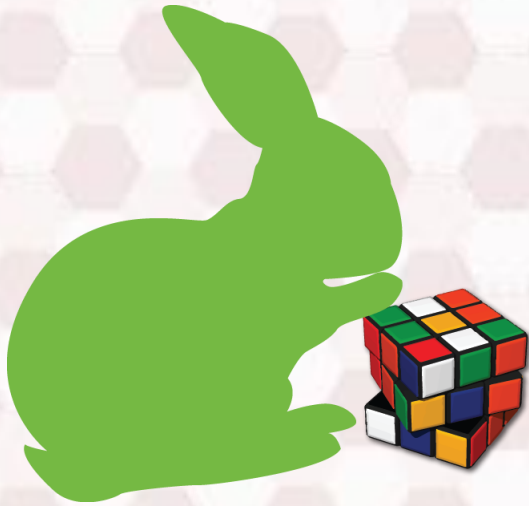Alberta

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Simple Puzzle

A Rubik's Cube is tough, but there is a single, agreed-upon solution

Complicated Problem

It's tricky to send a rabbit to the moon, but there is shared wisdom and rules to follow

Complex Mess

Raising a litter of bunnies is hard! Each bunny is different and they don't come with instructions

Traditional linear approaches to problem solving break down under extreme complexity. Systemic design may be more appropriate when:

Stakeholders hold diverse and conflicting values

The challenge is unique

Goals are ambiguous

Issues cut across silos

There are no 'solutions', only better or worse

OH YES
I'M A MESS

Systemic Design Mindset

Inquiring
Values learning: asks rather than assumes

Open
Values growth: defers judgment, open to change

Integrative
Values And: avoids binary trade-offs

Collaborative
Values teamwork: follows improv rules

Centered
Values presence: reflective & self-aware

FIXED MINDSET	GROWTH MINDSET
Mine isn't good	What am I missing?
I'm awesome at this	I'm on the right track!
I'm not good at art	I'm going to practice art!
I hate making mistakes	Mistakes help me learn
This is too hard	This is going to take some time
This is as good as my work will ever get	What can I do to make it even better?

How to Learn More

Follow the Rabbit:
A Field Guide to Systemic Design | by CoLab

SDX
Systemic Design eXchange
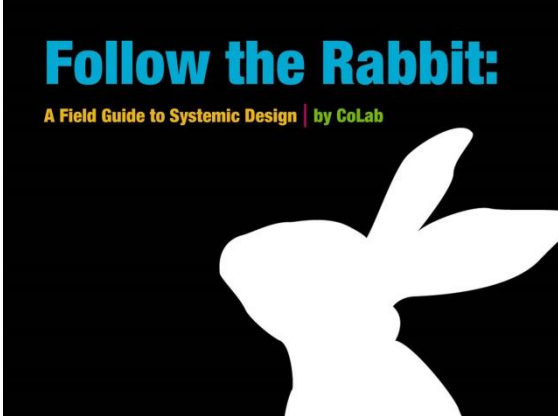
Resources

- Physical Library
- colab.alberta.ca
- Field Guides
- Method Hexes
- CoLab Team
- RSD

Communities of Practice

- Systemic Design
- Foresight
- SDX

Training

- Systemic Design Intensive
- Strategic Foresight Intensive
- Taster Sessions

Project Work

- Coaching
- Engage our Networks