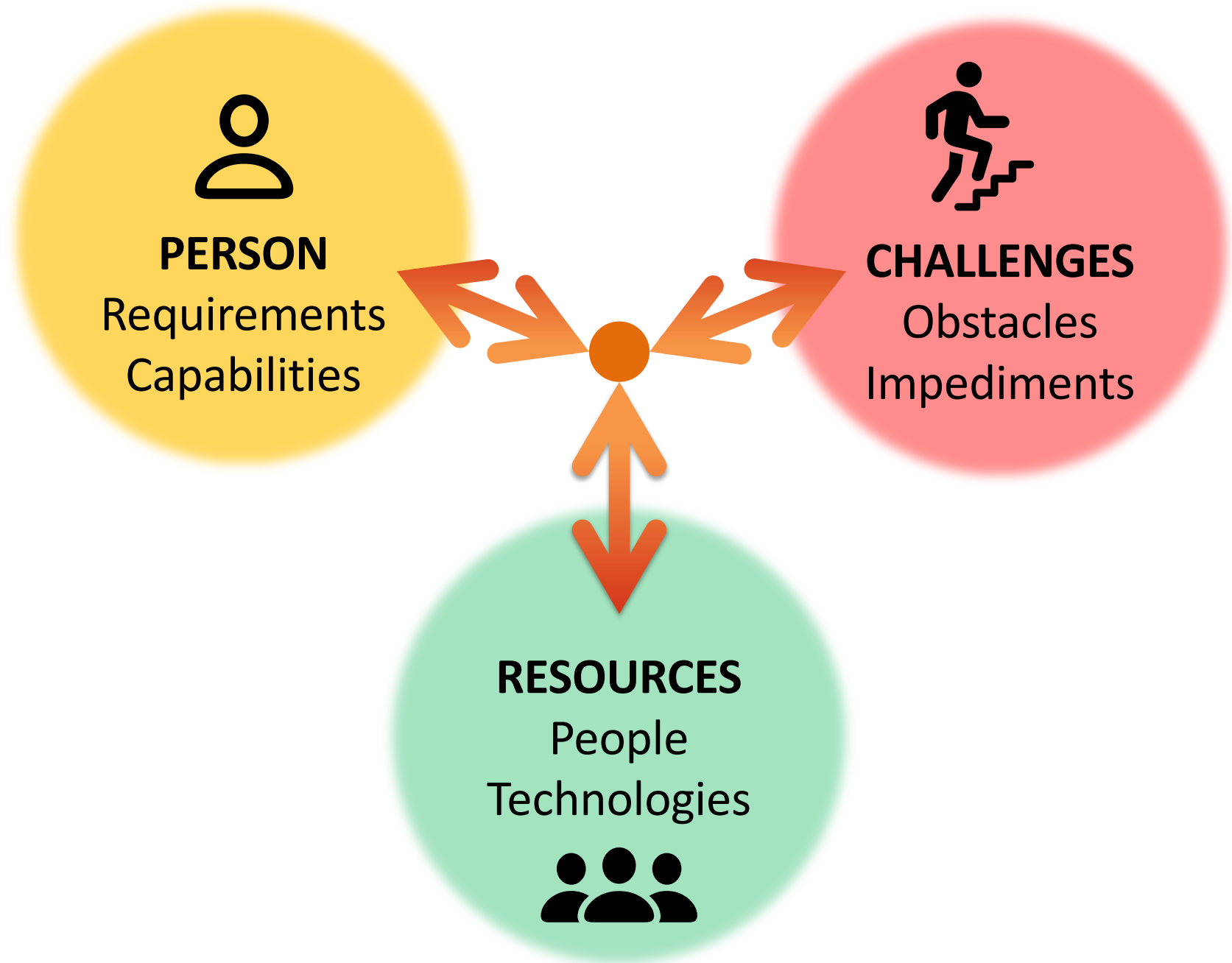


# Understanding The Problem

Lecture	<b>The Problem – Theirs and yours</b> <b>Parts of the problem</b> <b>Understanding – What, why and how</b> <b>Interview + Observation</b> <b>Process – Thinking like a designer</b>
Exercise	<b>Reflection + Query</b>
Discussion	<b>Your ideas, your questions</b>

# Seeing the parts of the problem as forces

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# Requirements, aspirations, desires – Needs

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**Independence**

**Self-actualization**

Desire to become the most that one can be

**Esteem**

Respect, self-esteem, status, recognition, strength, freedom

**Love and belonging**

Friendship, intimacy, family, sense of connection

**Safety needs**

Personal security, employment, resources, health, property

**Physiological needs**

Air, water, food, shelter, sleep, clothing, reproduction

# Exercise – Reflect: How you got here today

**Think about what it took for you to be here today –**  
From the time you woke up, or from your last class.

**Make a list of ~10 things you had to do**  
The things you had to do to be here today ...

**Make note –**

1. What things were important for your journey?
2. Why was it important to be done in that way?
3. Tools/enablers you used
4. Blocks/challenges you managed

5 min

# What we want to learn about the problem

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## **Goals**

What does the person want to do, have, or accomplish?

## **Values**

What's important about what they want or the way they achieve it? What does it mean for them?

## **Capabilities**

What resources, skills or abilities does the person have or bring to the situation?

## **Constraints**

What kinds of obstacles, limitations, or deficits are at work in the situation?

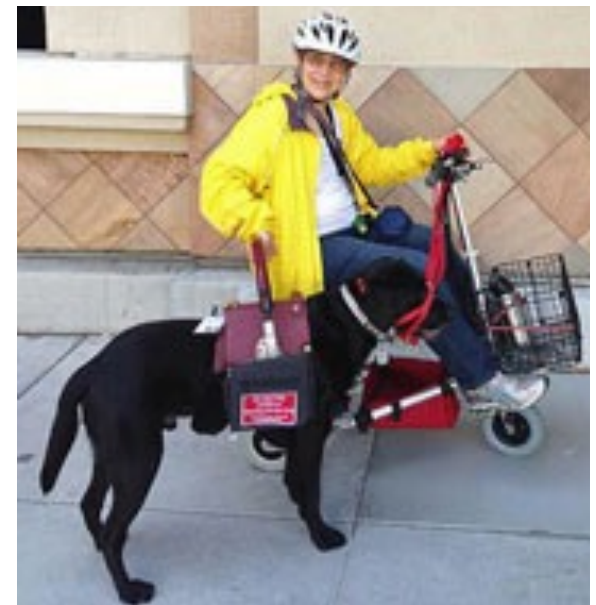
# How do we do it?

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**Interview** – Talk to people

**Observation** – Watch their activity, in context

**Prototype** – Make something and see what they do with it



# How do we do it?

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**Interview** – Talk to people

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**Then what?**

## **CRITICAL THINKING**

Facts

Assumptions

Inferences

## **DESIGN THINKING**

Ideate

Sketch

Prototype

Test & Analyze

Iterate

# Interviewing

## TIPS

**Ask about** goals & what's important

**Avoid** leading questions

**Ask them to show** as well as tell



- +** We get information directly from the person – the user  
We get their perspective, how they feel about it
- Time and skill intensive  
Must be careful when generalizing  
What people say is often different than what they do



# Observing

## TIPS

**Observe** *actual* activity

**Approximate** the design target

**Immerse** yourself in context

**Shadow**, record, review

**Collect** a rich description of the activity



**Look for –**

**Resources** used to accomplish

**Hindrances** that get in the way

# Group exercise – How they got here today

**Work with others** at your table

One person volunteers to be ‘interviewee’

Class or community member

**Ask about** how *they* got here today

Activity | Materials | Gear

**See what you can learn** about their:

**Goals** – why they wanted to be here – their purpose in coming

**Values** – what was important about the way they got here

**Capabilities** – what resources were available or used

**Constraints** – what blocks stood in the way

# Thinking like a designer

