

# Introduction to Human- Centered Design (HCD)

# Objectives & Expectations

- Develop a basic understanding of Design, Innovation and Human-Centered Design.
- Practice Human-Centered Design methods through a quick activity.

# Design & Innovation

What is *innovation*?

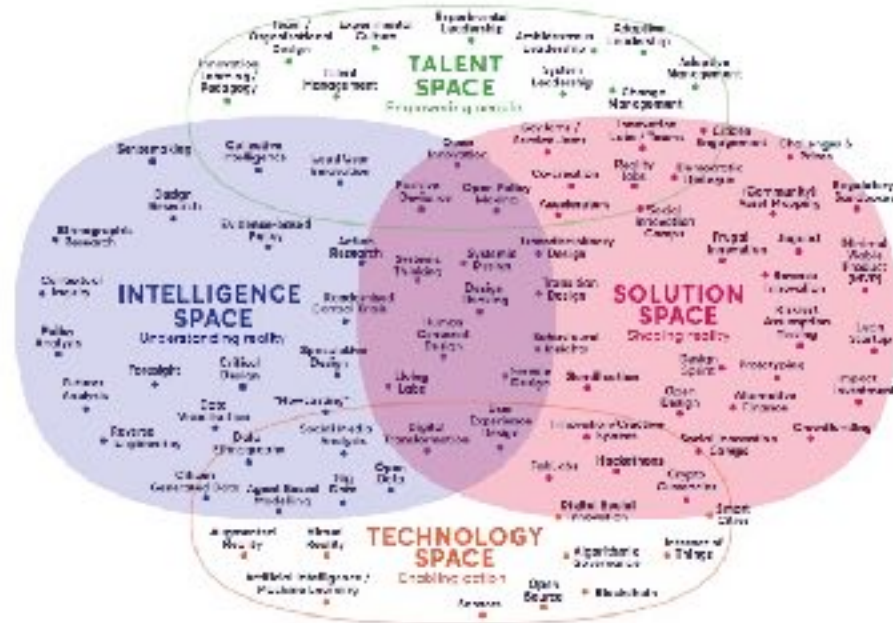


# Design & Innovation

How is innovation practiced in your organization?

## Landscape of innovation approaches

An overview for exploring different innovation approaches when developing your innovation strategy

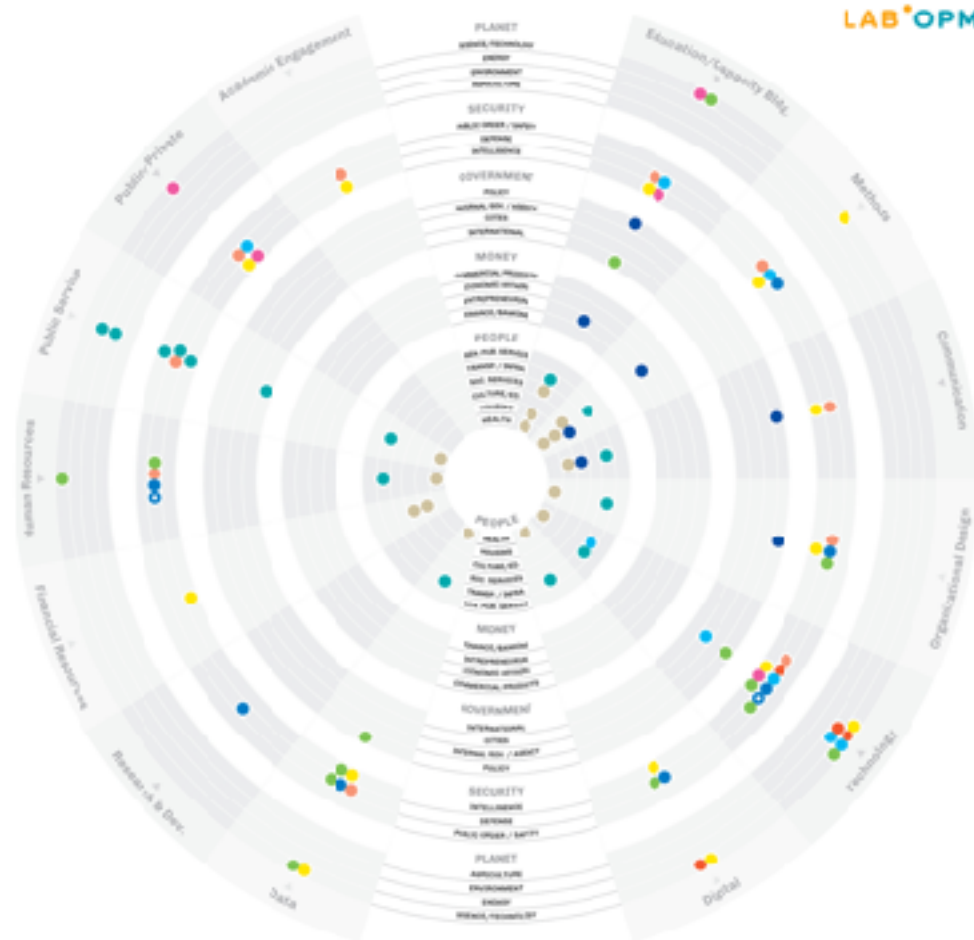


Lead 02/18

52 Content & content edition

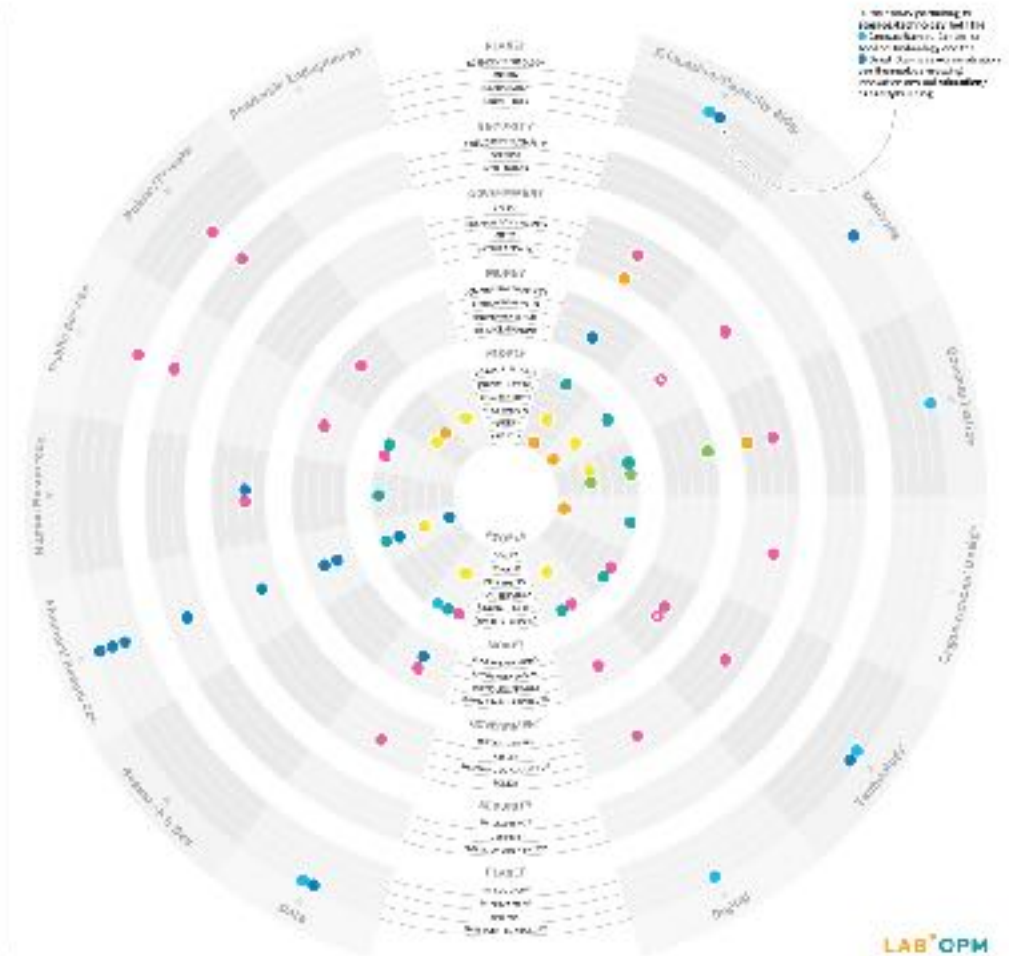
# Design & Innovation

How is innovation practiced in the federal government?



# Design & Innovation

How is innovation practiced in the federal government?



# Design & Innovation

What is *design*?



# Design & Innovation

What is *design*?



People think that design is styling. Design is not style. It's not about giving shape to the shell and not giving a damn about the guts.

Good design... combines technology, cognitive science, human need, and beauty to produce something that the world didn't know it was missing.

Paola Antonelli  
Curator of the Department of  
Architecture & Design, MOMA



# Design & Innovation

What is *design*?



Everyone designs who devises courses of action aimed at changing existing situations into preferred ones.

Herbert Simon  
Economist, Psychologist,  
and Design Theorist

# Design & Innovation

What is *design*?



Effective design of public service is itself an essential public service.

The Design Necessity:  
A Casebook of Federally  
Initiated Products, 1973

# Design & Innovation

What is *design*?

Good Design makes that which is needed and/or wanted both **available** and **accessible**.

# Design & Innovation

What is *design*?

Bad Design not only means a needed “thing” is absent or inaccessible.

Bad Design is **demoralizing**. It indicates to a person that their needs don't matter.

# Design & Innovation

Defining Human-Centered Design

The discipline of navigating complex problems and creatively designing effective solutions to meet people's real needs.

# Design & Innovation

Defining Human-Centered Design

The **discipline** of navigating complex problems and creatively designing effective solutions to meet people's real needs.

# Design & Innovation

An Integrative Discipline

## HCD draws on familiar design disciplines:

---

- Graphic Design
- Industrial/Product Design
- Digital/Web Design
- Fashion Design
- Interior/Landscape Design
- Architecture
- Etc.

## And incorporates other methodologies:

---

- Anthropology & Sociology
- Cognitive & Computer Science
- Behavioral Economics
- Ergonomics/Human Factors
- Participatory Design
- Service/Experience Design
- Interface/Interaction Design
- Brand/Business Strategy
- Etc.

# Design & Innovation

## Distinguishing HCD

**HCD is a close cousin to some other innovative practices:**

---

- Design Thinking
- Design Sprints
- Agile Development
- Lean Manufacturing
- Scenario Planning
- Adaptive Leadership
- Six Sigma

But these are more specific tools and tactics developed by organizations for (or from) particular applications in their work. HCD is a complimentary discipline which often includes, but is not wholly defined by, these sorts of methods and mindsets.



# Design & Innovation

Defining Human-Centered Design

The discipline of **navigating complex problems** and creatively designing effective solutions to meet people's real needs.

# Design & Innovation

Defining Human-Centered Design

The discipline of navigating complex problems and creatively designing **effective solutions** to meet people's real needs.

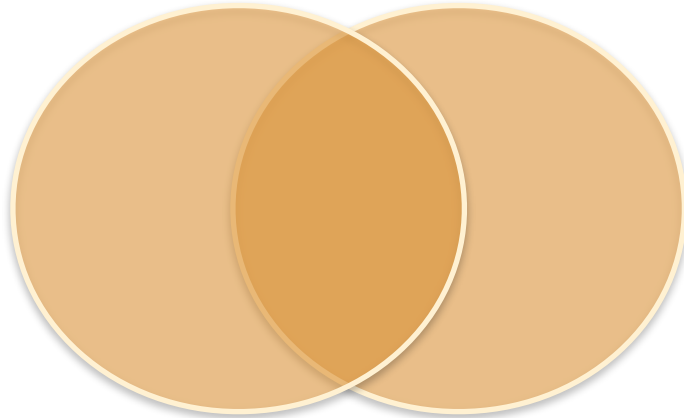
# Design & Innovation

Defining Human-Centered Design

The discipline of navigating complex problems and creatively designing effective solutions to meet **people's real needs**.

# Design & Innovation

Distinguishing HCD



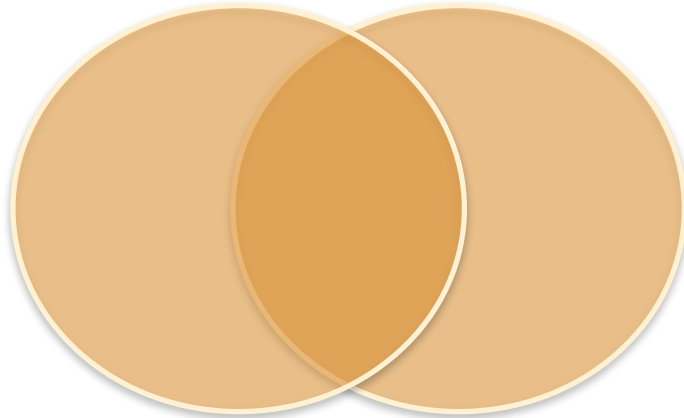
**HCD is a close cousin to some other innovative practices:**

- Design Thinking
- Design Sprints
- Agile Development
- Lean Manufacturing
- Scenario Planning
- Adaptive Leadership
- Six Sigma, Etc.

But these are more specific tools and tactics developed by organizations for (or from) particular applications in their work. HCD is a complimentary discipline which often includes, but is not wholly defined by, these sorts of methods and mindsets.

# Design & Innovation

Distinguishing HCD



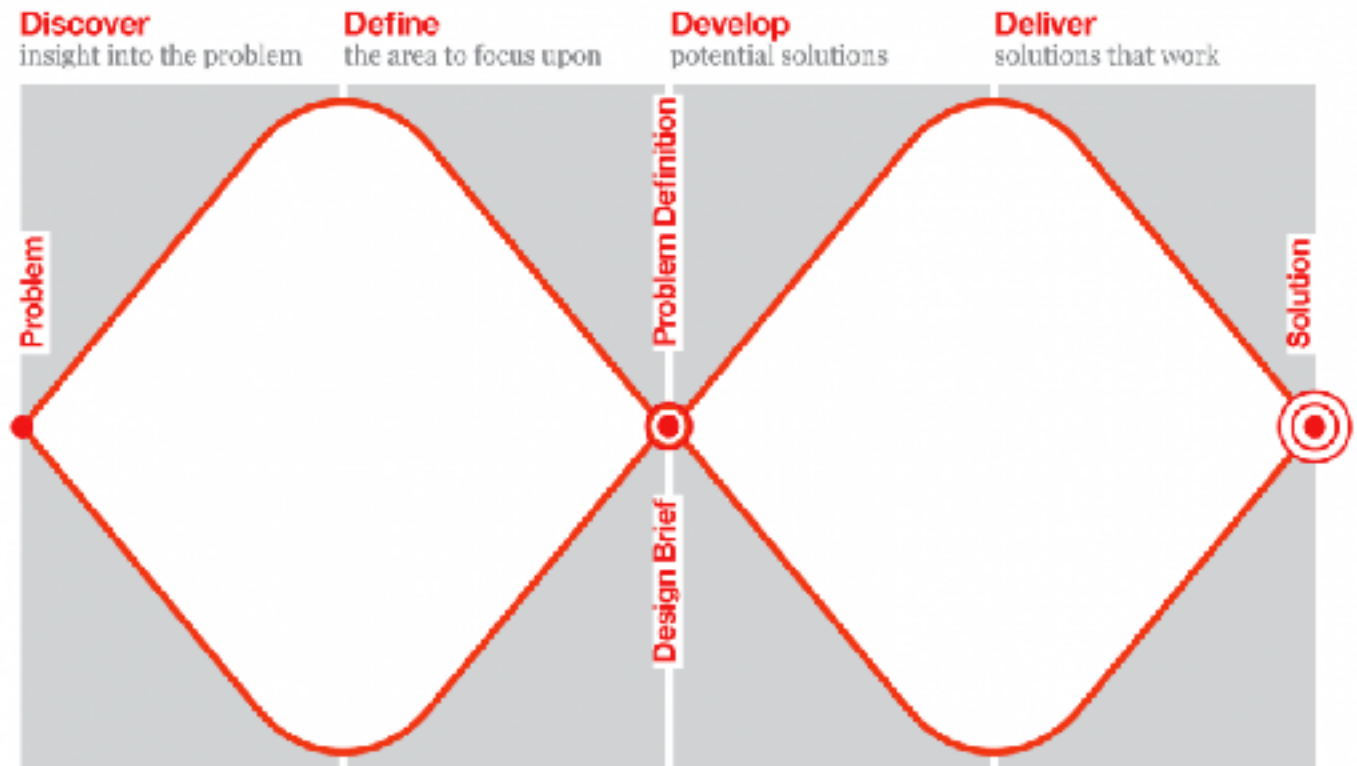
## HDC is NOT:

- Design by Committee
- Only “practiceable” by capital-d Designers
- Blind to the backgrounds at the table
- Design Thinking
- A silver bullet to every problem in every situation

# HCD Processes

British Design Council's Double Diamond

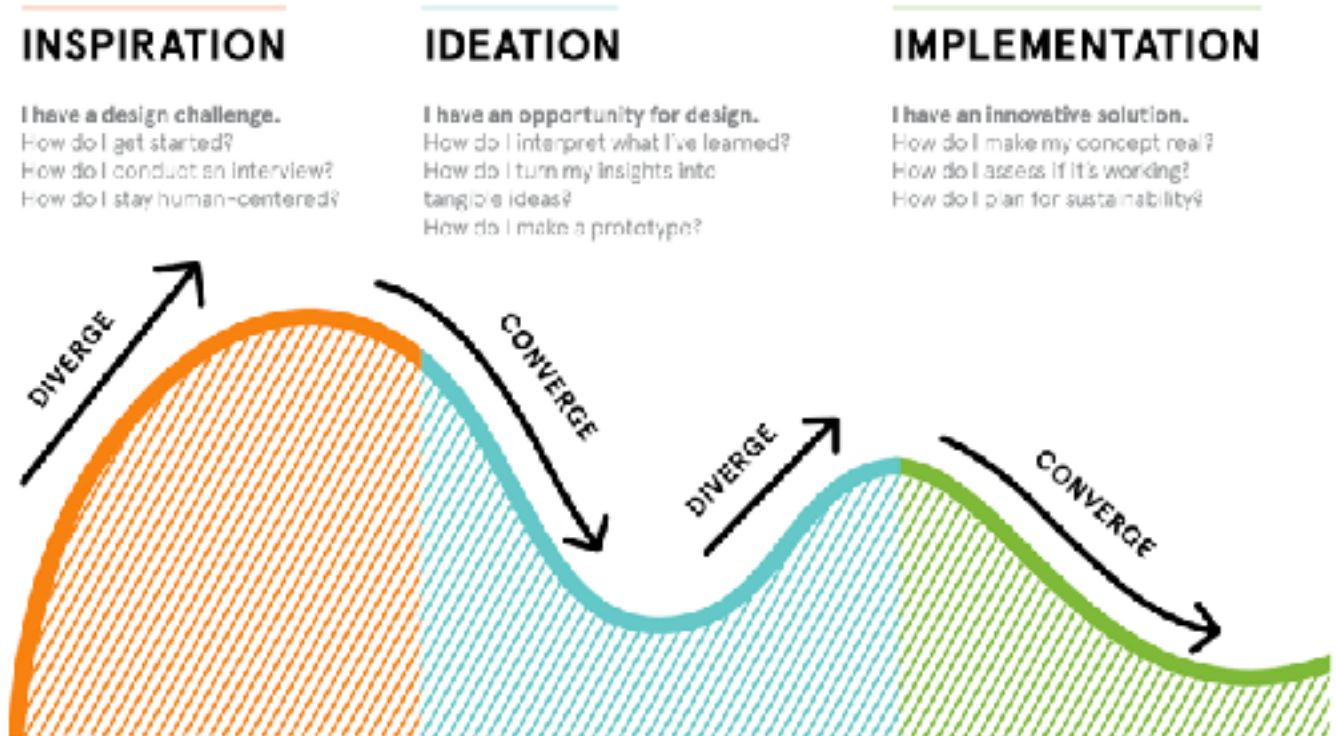
Copyright  
British Design Council



# HCD Processes

## IDEO's HDC Ideology

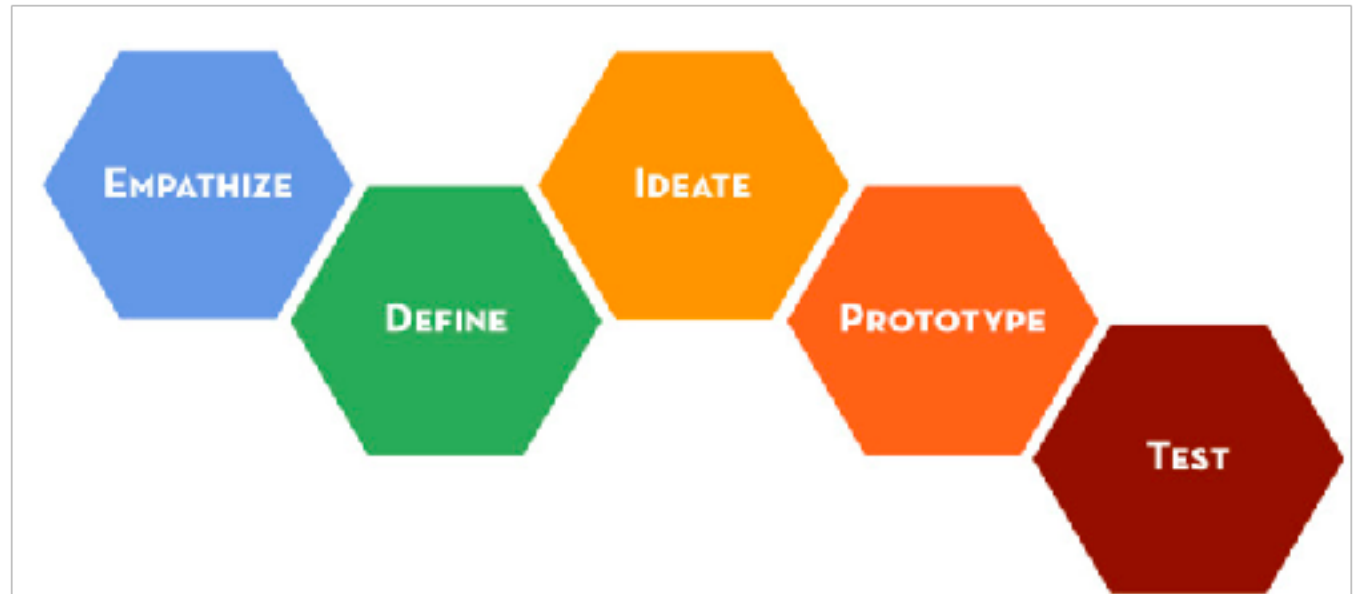
Copyright  
IDEO



# HCD Processes

Sanford d.School's Design Thinking Process

Copyright  
Sanford D.School



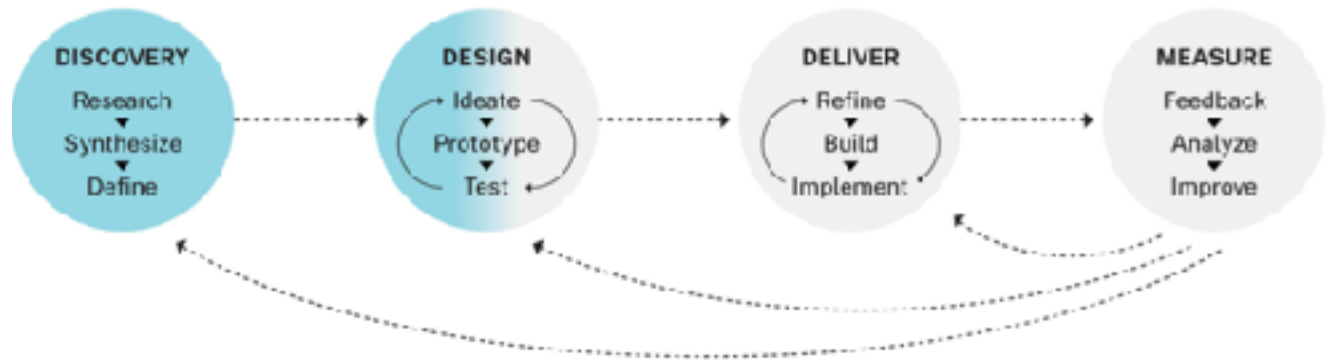


# HCD Processes

The Lab @ OPM's HCD guide series framework

## Copyright

Pretty sure we have not  
taken the time to copyright  
this yet

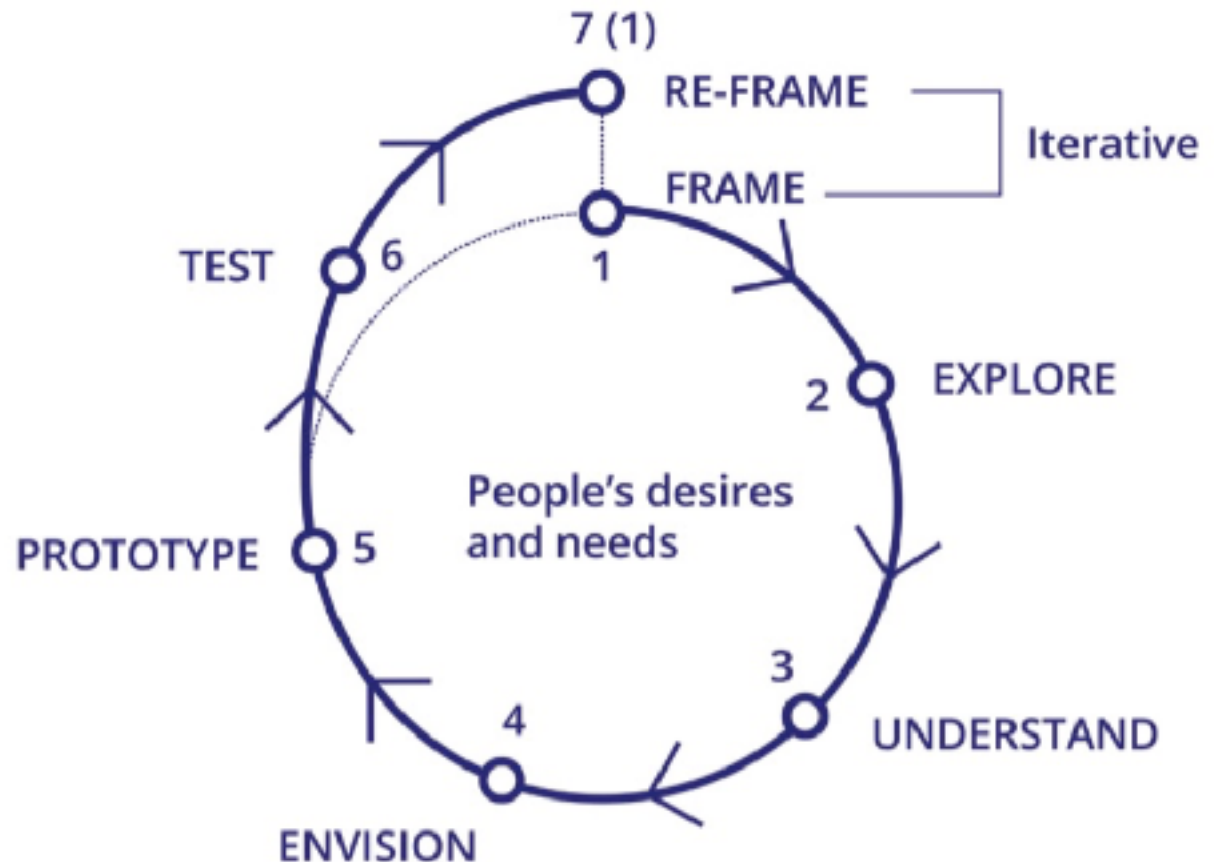


# HCD Processes

The Lab @ OPM's process to meet people's real needs

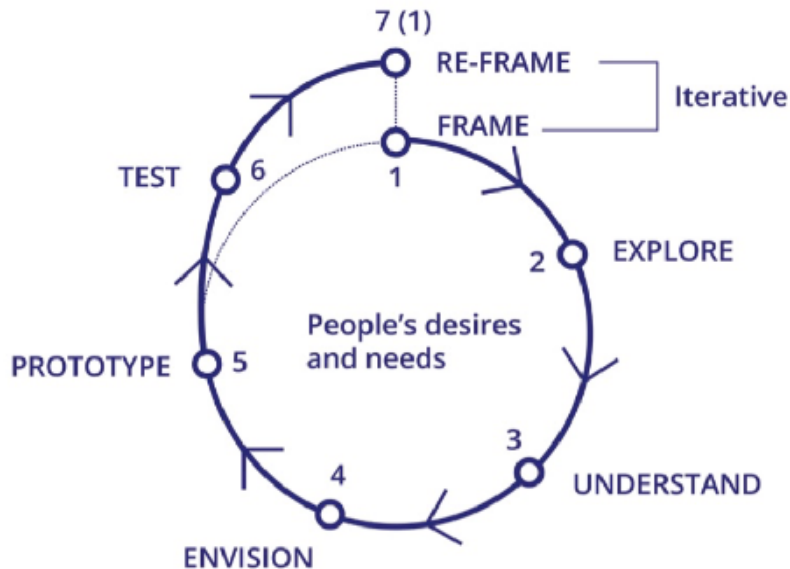
## Copyright

Pretty sure we have not  
taken the time to copyright  
this yet



# HCD Processes

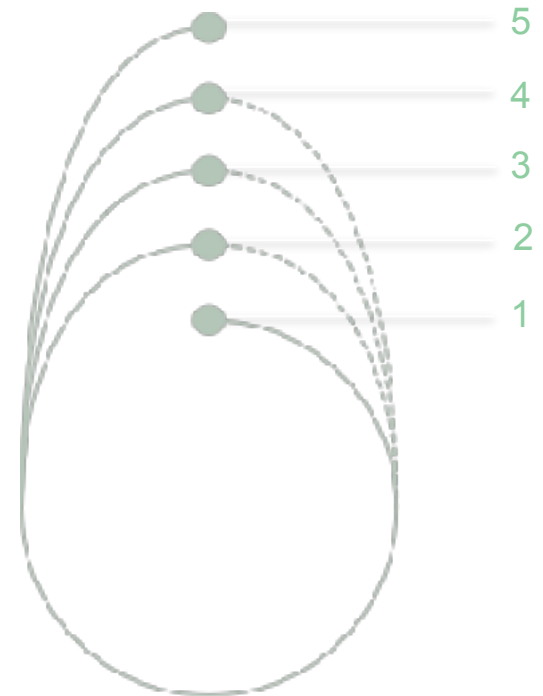
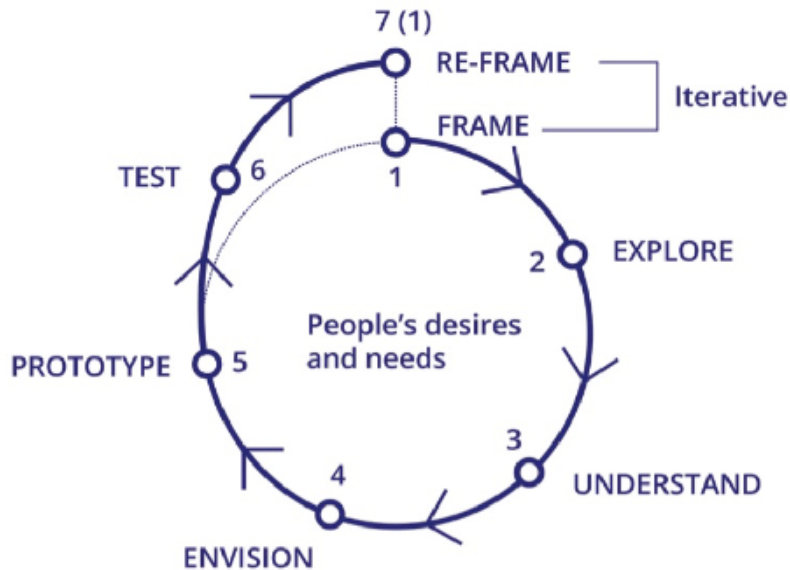
The Lab @ OPM's process to meet people's real needs



- **FRAME:** How the problem is initially defined: *How Might We...*
- **EXPLORE:** What has been done before, what is the context of the problem.
- **UNDERSTAND:** Ask the people about the problem you are trying to solve.
- **ENVISION:** Develop and “green house” ideas, many of them.
- **PROTOTYPE:** Make to learn about what is feasible and possible.
- **TEST:** Ask people to engage with your prototype to know how to make it better.
- **RE-FRAME:** Arrive at a new way of understanding the problem that will allow you to iterate another design cycle and arrive at better solutions.

# HCD Processes

The Lab @ OPM's process to meet people's real needs



# Design & Innovation

Defining Human-Centered Design

<https://youtu.be/rmM0kRf8Dbk>

# Design Exercise

Design a wallet that is useful and meaningful for a partner.

- 1st task: Interview
- 2nd task: Dig Deeper
- 3rd task: Synthesis
- 4th task: Ideation, Prototyping, and Testing

## Things to Consider:

Ask your partner to walk you through the shopping cart experience

- Purpose of your wallet
- When do they carry their wallet?
- Why do they have a particular card in there?
- What do the things in their wallet tell you about their life?

## Dig Deeper:

- Try to dig for stories, feelings, and emotion.
- Ask 'WHY?' often.
- Forget about the wallet, find out what's important to your partner.

# Design Exercise

Design a wallet that is useful and meaningful for a partner.

- 1st task: Interview
- 2nd task: Dig Deeper
- 3rd task: Synthesis
- 4th task: Ideation, Prototyping, and Testing

## Synthesis:

- Synthesize your learnings into two groups:
  - Your partner's goals and wishes
  - Insights you discovered.
- Example of an insight: wallet as a reminder and organizing system, not a carrying device.
- Select the most compelling need and most interesting insight to articulate a point-of-view

## Ideation, Prototyping and Testing:

- Remember to be VISUAL—use words just when necessary to call out details.
- Sketch a new idea.
- Create an experience your partner can react to.

# Primer on Constructive Critique



# Communication & Feedback

Critique is about:

- Feedback
- Communication
- Language, People and Perception

# Communication & Feedback

## Leveraging forms of Communication

1. Verbal
2. Written
3. Non-Verbal (Ex: Visual, Gesture, Paralanguage, Haptic, Self Presentation)

Note: All of these are affected by time, context and people involved.

# Defining the words we use

feed·back noun

- 1. information about reactions to a product, a person's performance of a task, etc., used as a basis for improvement.*
- 2. the modification or control of a process or system by its results or effects, e.g., in a biochemical pathway or behavioral response.*

# Defining the words we use

con·struc·tive adjective

- 1. of or relating to construction or creation*
- 2. promoting improvement or development*

Note: This is not about Critical Theory or Constructive Criticism

# Exercise

## Roleplaying the many hats of feedback

**SELECT A ROLE CARD and read it.**



You will play this role when providing feedback about your group member's way of getting here this morning.

# Reflection & Conversation



# From Scrub-down to CC

## Shifting Practice

<u>FROM</u>		<u>TO</u>
Person	→	the Matter at Hand
Absolutes	→	Nuance and Depth
Tearing down	→	Contributing to
Anonymous	→	Identifiable
Spontaneous	→	Coordinated/Simultaneous
Clinical and permanent	→	Optimistic and always subject to evolution

# From Scrub-down to CC

## Shifting Practice

### FROM

### TO

Features



Process and experience

One directional  
(one-and-done)



Dialogue and collaborative

Hierarchical



Giving and receiving

About the surface



About the content

Binary information



Multi-faceted information