REAL WORLD INNOVATIONS: PRACTICAL DESIGN THINKING FOR HEALTHCARE

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FROM ABSTRACT TO IMPACT

Accreditation & Designation Statements

Process for Claiming Credit

For nursing the number of credits designated is the number of credits awarded

COPIC is accredited as a provider of Continuing nursing education (CNE) by the American Nurses Credentialing Center's Commission on Accreditation (ANCC). This activity was designated for 1 nursing contact hours.

In order to earn CNE credit learners should complete the evaluation questions that will assess if nurses have learned the most important recommendations and conclusions from this course. Each LIVE activity consists of the full participation of the learner, and a course evaluation. The evaluation will open after the learning activity is completed.

Process for Completing the Activity:

1. Read the target audience, learning objectives, and financial disclosures.

2. Complete the LIVE educational activity.

3. Complete the activity evaluation on COPIC's LMS platform and/or Survey Monkey

It is estimated that this activity will take approximately 1.15 hours to complete.

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FROM *ABSTRACT* TO *IMPACT*

Vision

Building the **integrated academic healthcare** system of the future with patients at its center, transforming care and making it more affordable, improving outcomes and expanding our impact regionally, nationally and globally

*FROM **ABSTRACT** TO **IMPACT***

Vision

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DESIGN THINKING HELPS ENSURE SOLUTIONS ARE HIGHLY RELEVANT AND COMPELLING FROM THE USERS' PERSPECTIVE.

So what?

Teams who use design-thinking are **75%** more efficient

Companies who leverage design-thinking see **300%** return on investment

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Learning Objectives

Understand

Understand the principles and an approach for design thinking

Explore

Explore some practical case examples of practical design thinking

Apply

Learn to apply concepts of design-thinking in your practice settings

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The "F" Word

Learnings in LMICs Apply to US Market

Bloomberg

Amazon Makes $1 Billion Splash in Health Care, Buying PillPack

By Robert Langreth and Zachary Tracer

June 28, 2018, 8:39 AM EDT *Updated on June 28, 2018, 11:06 AM EDT*

SEVEN YEARS BUILDING A GLOBAL ECOSYSTEM

4,300+ INNOVATORS

830+ PROPOSED INNOVATIONS

650+ MENTORS

30+ COMPANIES FORMED

40+ PATENTS FILED
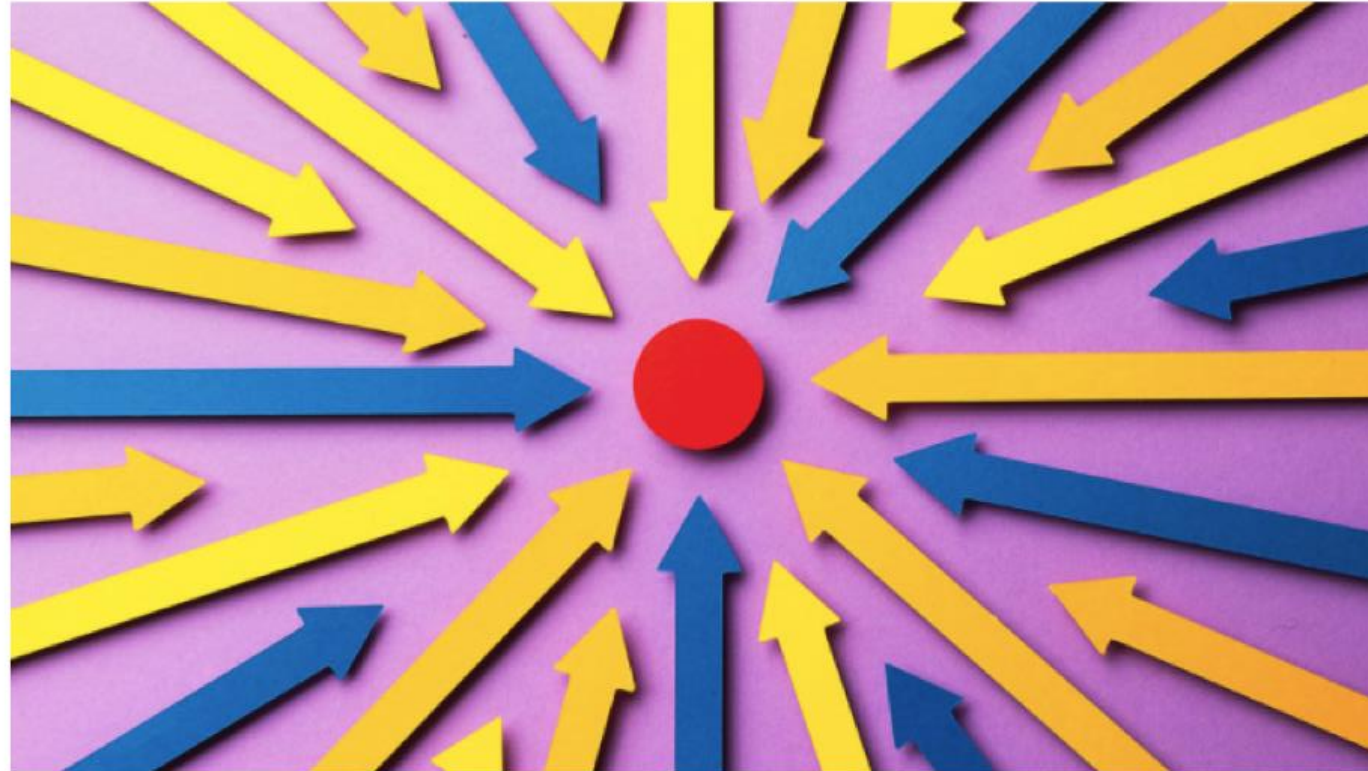
730+ ORGANIZATIONS

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TECHNOLOGY

Putting Humans at the Center of Health Care Innovation

by **Yasser Bhatti**, **Jacqueline del Castillo**, **Kristian Olson**, and **Ara Darzi**

MARCH 02, 2018

SUMMARY   SAVE   SHARE   COMMENT   TEXT SIZE   PRINT $8.95 BUY COPIES

Bhatti Y, Castillo J del, Olson K, Darzi A. Putting humans at the center of Health Care Innovation. Harvard Business Review. October 27, 2020. Accessed October 10, 2024. https://hbr.org/2018/03/putting-humans-at-the-center-of-health-care-innovation.

DESIGN THINKING IS BOTH A *MINDSET* AND A *PROCESS*

DESIGN THINKING IS BOTH A *MINDSET* AND A *PROCESS*

An approach to addressing challenges using **creative** problem-solving techniques. The best designers have the **humility** to realize that their first concept of a problem or solution is often misguided and the **empathy** to consider the challenge from other perspectives.
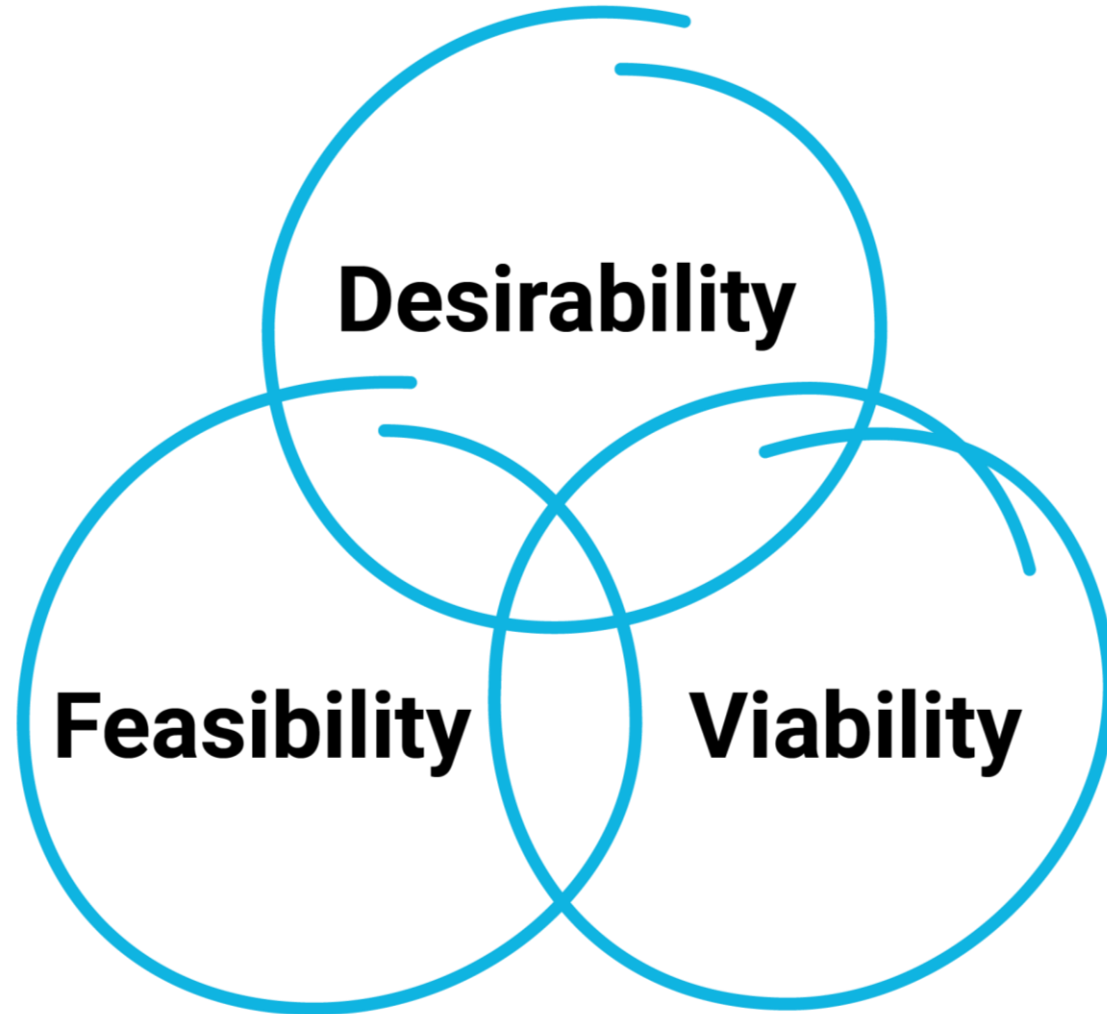
Design Thinking Process

Empathize   **Define**   **Ideate**   **Prototype**   **Test**

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FROM *ABSTRACT* TO *IMPACT*

19
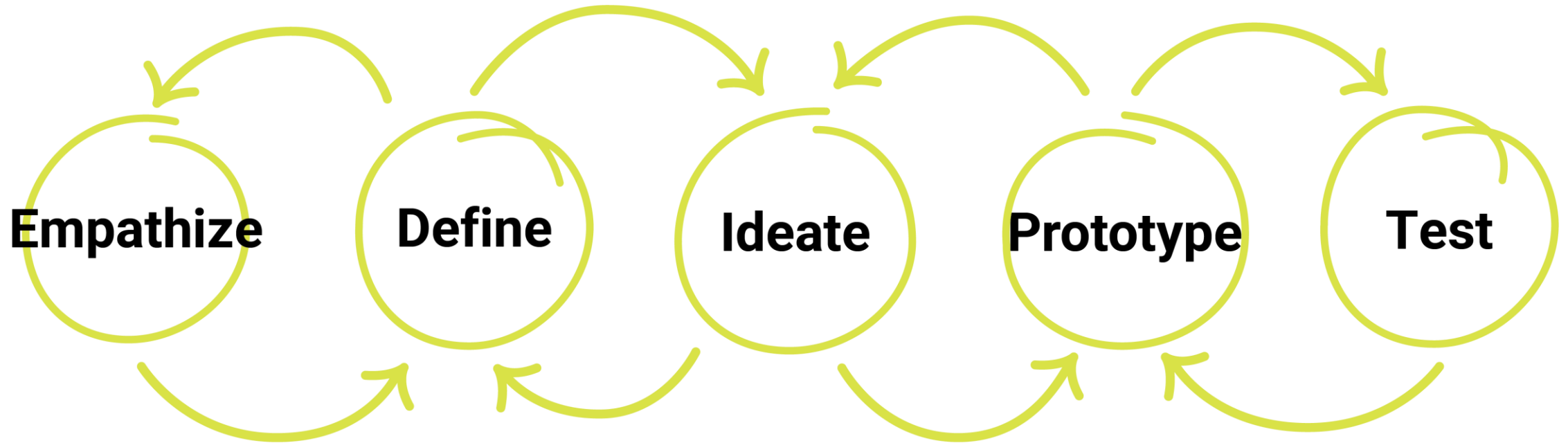
THE BEST SOLUTIONS COME FROM THE PEOPLE CLOSEST TO THE CHALLENGE.

Healthcare Needs More Design Thinking

Healthcare Needs More Design Thinking
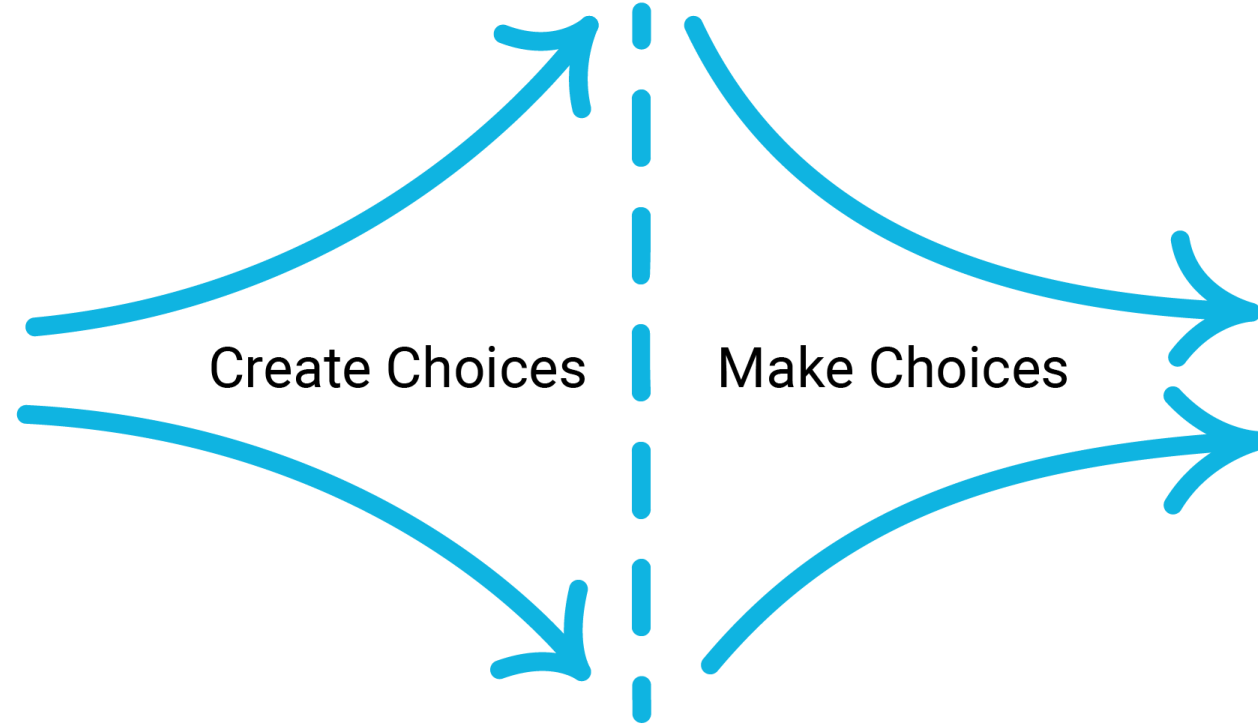

Innovation Sweet Spot

Desirability

Feasibility

Viability
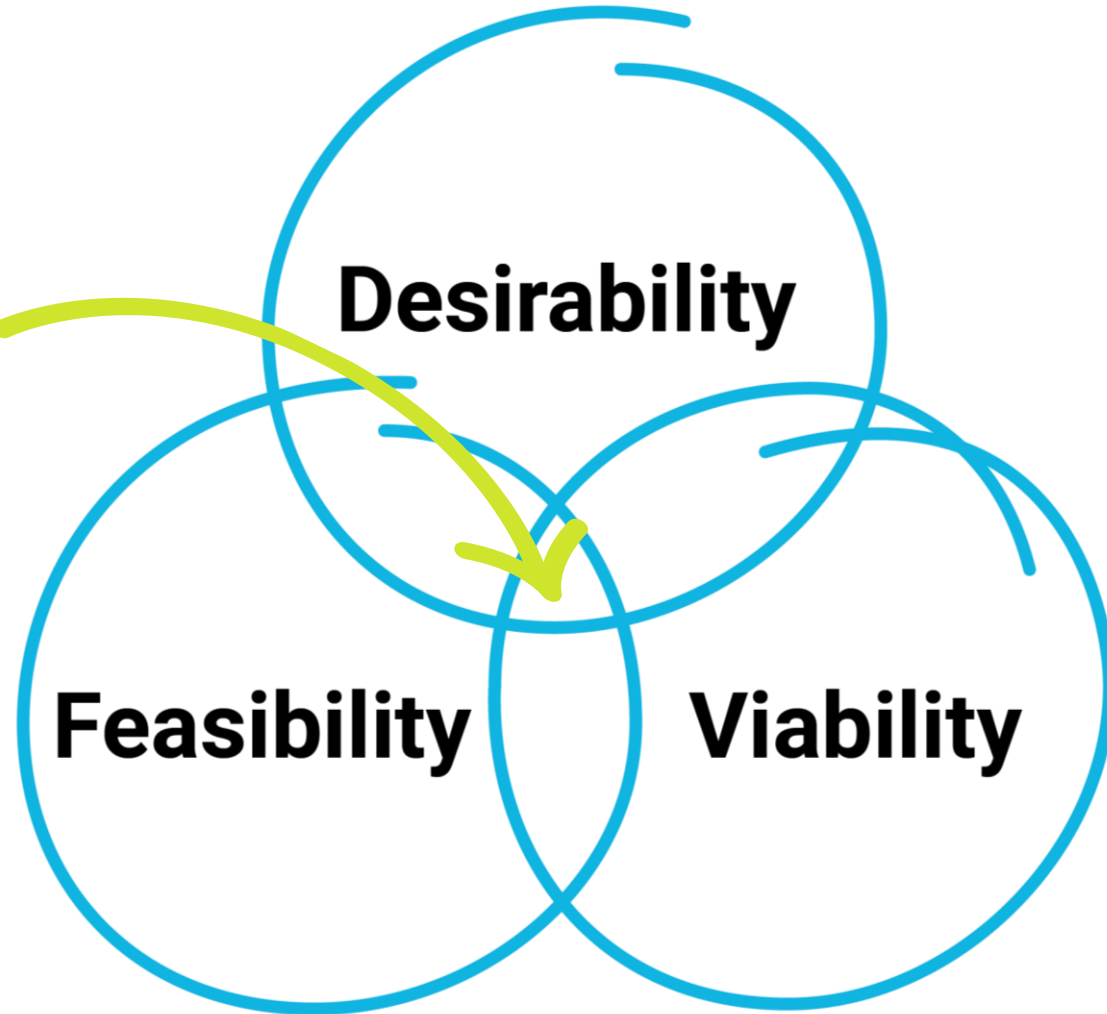
Exercise: Question Burst

Curiosity is the close cousin to creativity

CASE EXAMPLES

DESIGN CHALLENGE

Prompt: "How might we" statements...

Design Prompt

How might we increase COVID testing capacity and reduce use of PPE for testing?

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End-user feedback → Iterate → Refine

Working Solution: Hexapod

Partners: NWH, MGH, Eleven

Approach: secondary research; in-depth interviews; observations; prototyping; implementation support; measurement + impact

Impact:

- Increased testing capacity 354%
- Decreased use of PPE 97%
- Each booth saved between $333k - $1.7M

Olson KR, Butler SJ, Blanchfield BB, et al. Association of a High-Efficiency Particulate Air Filter COVID-19 Testing Booth With Testing Capacity, Cost Per Test Acquired, and Use of Personal Protective Equipment. JAMA Netw Open. 2021;4(7):e2117698. doi:10.1001/jamanetworkopen.2021.17698

Ramamurthi, R. Using Reverse Innovation to Fight COVID-19. Harvard Business Review. June, 2020.

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FROM ABSTRACT TO IMPACT

How might we increase patient mobility during an inpatient stay?

Patient Mobility

Partners*: Salem Hospital, Population Health Management

Approach: co-design workshops; in-depth interviews; observations; prototyping; implementation support; measurement + impact

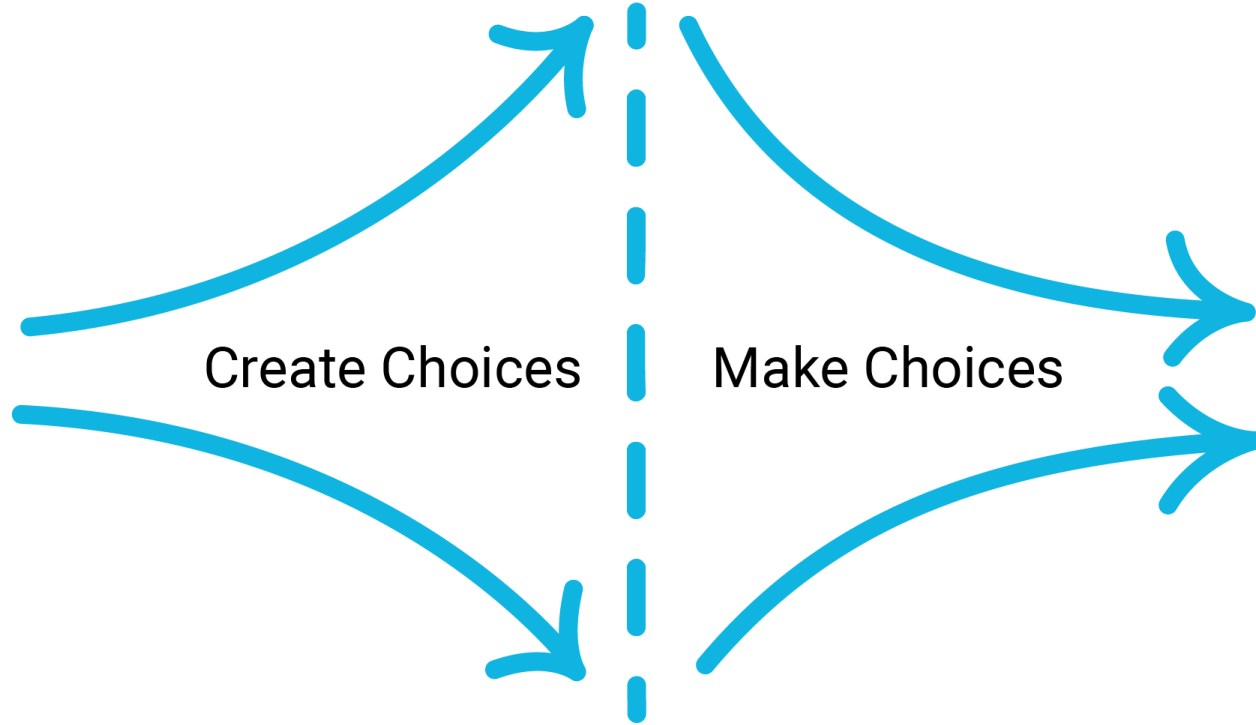"THE BEST WAY TO HAVE A **GOOD IDEA** IS TO HAVE **LOTS OF IDEAS.**"
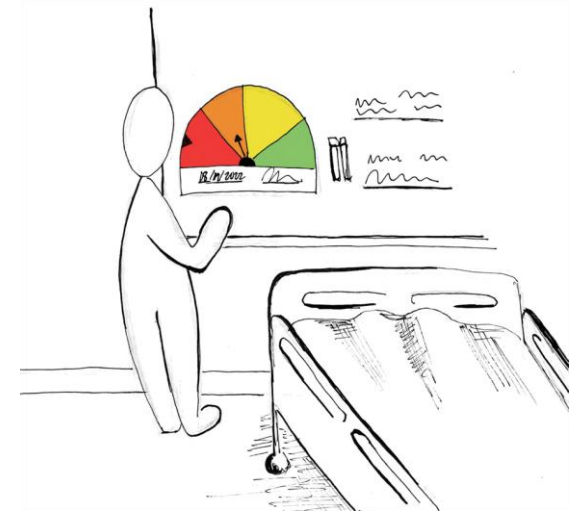
– LINUS PAULING

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Divergent to Convergent Ideas

Divergent Ideas

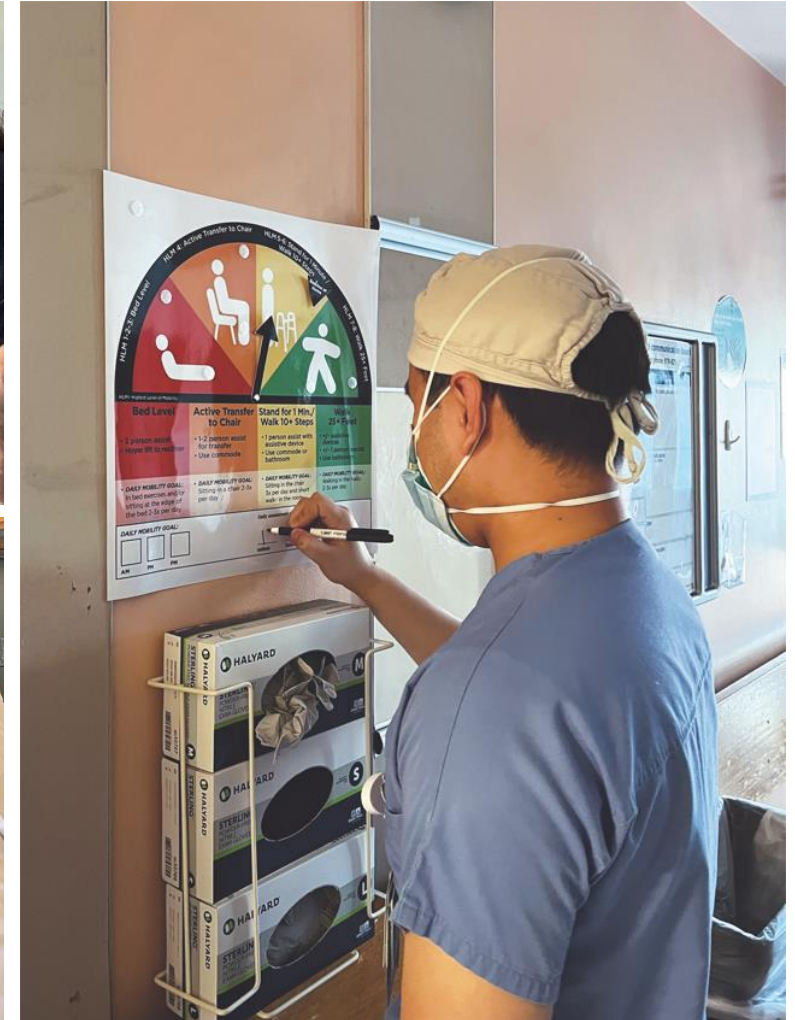**Convergent Ideas**

Create Choices

Make Choices

Working Solution: Mobility Speedometer

Test → Iterate → Refine

Impact:

- 300% increase in number of mobility episodes documented

- 81% of patients improved or stayed the same vs 59% at baseline

- Reduced avg length of stay: 0.17 days for medical pts and 0.25 days for surgical pts
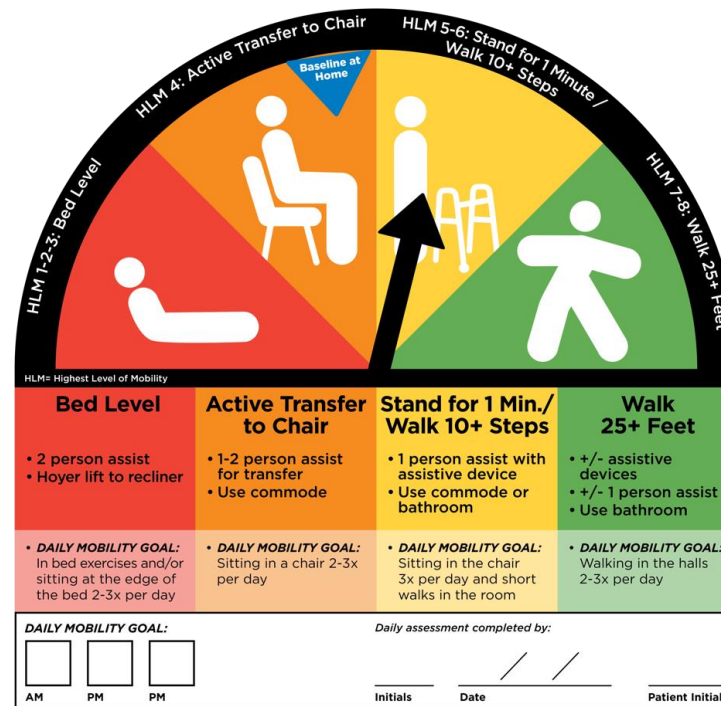
Springboard Studio Case Studies
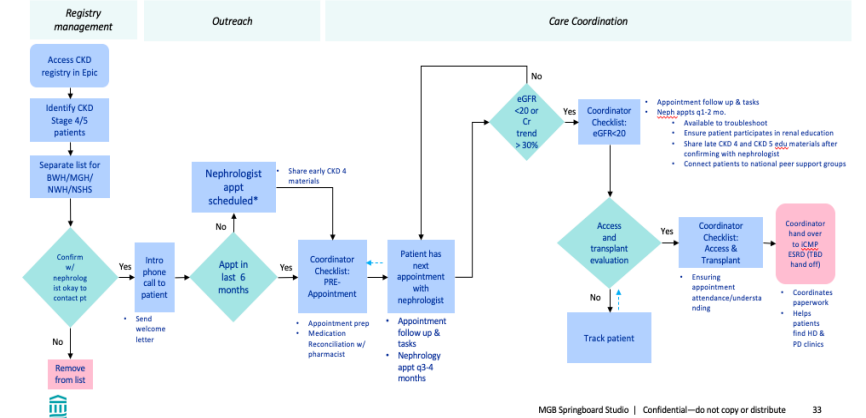
HEXAPOD COVID TESTING BOOTH

MOBILITY SPEEDOMETER

CKD COORDINATOR WORKFLOW

"A PROBLEM WELL STATED IS A PROBLEM HALF-SOLVED."

– CHARLES F. KETTERING,
INVENTOR, ENGINEER, 186 PATENTS

Example: Patient Appointments

"My appointment was scheduled for 9:15AM. I hired a driver since I am blind. We left my home at 7:00AM to be on time. The traffic was bumper-to-bumper all the way. I arrived at 9:33AM and was turned away by a very rude receptionist who displayed no efforts to help me keep my appointment for high blood pressure. Instead, she directed me to the 'check out' window where another receptionist said the next available appointment was 6 weeks later. I had to pay $240 to the driver who brought me to the hospital and obviously cannot find my way by myself. The hospital's new policy of only a 15-minute grace period and then turn the patient away is a statement to the disrespect management has for their paying customers. They turned me away because I was 3 minutes late during a horrific rush hour snarl and it cost me my mental health and $240 both times for the driver."

Design Prompt

How might we accommodate the needs of our patients who commute, while also ensuring flow of clinical schedules?

Empathy Map

A collaborative visualization tool that helps articulate what we know about a particular stakeholder that:

- Creates a shared understanding of user needs
- Help identify gaps to fill in design research
- Aids in decision making

SAYS

THINKS

DOES

FEELS
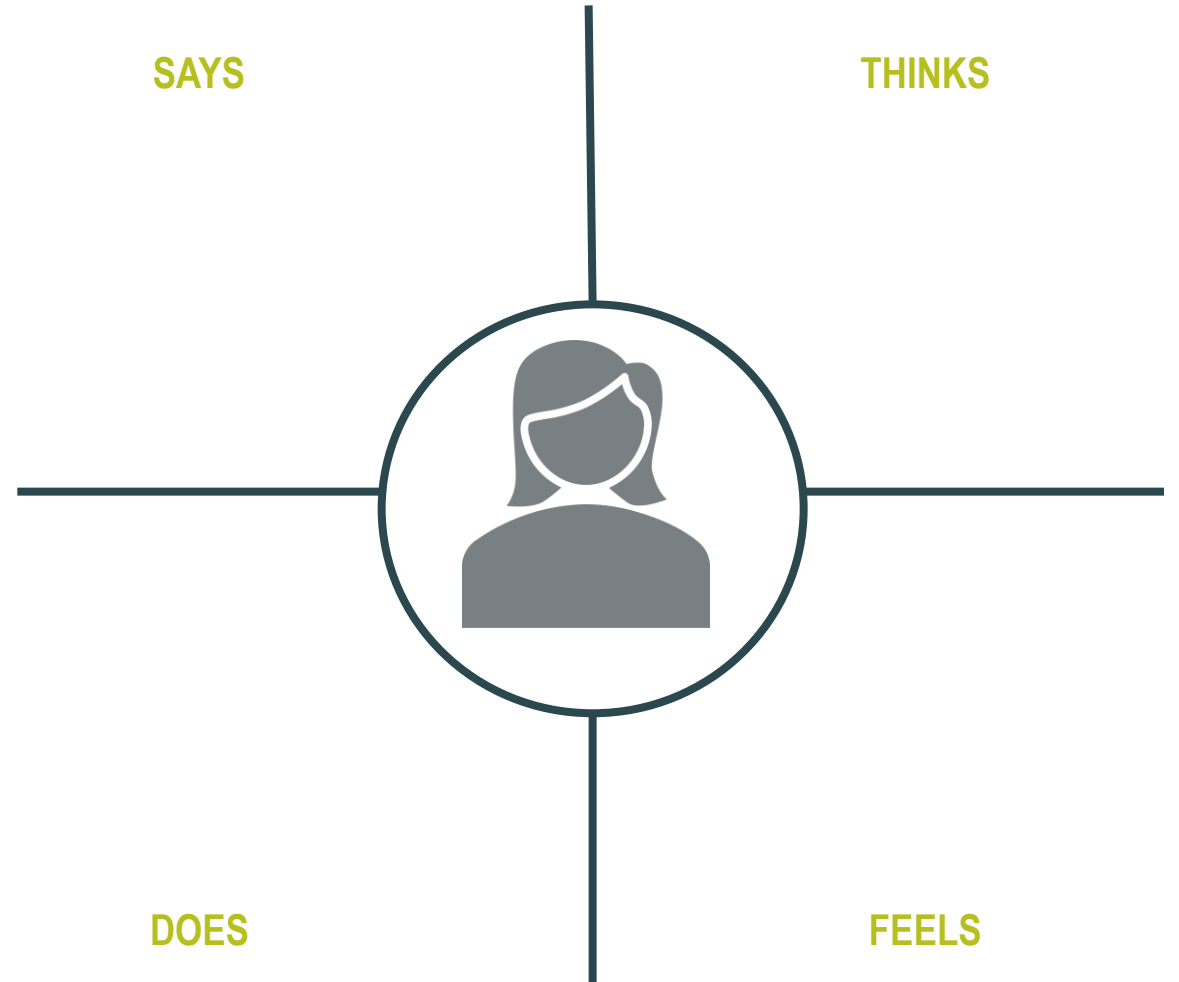
"As Is" Journey Map (and Add Pain Points)

- Think of the key steps involved for the patient in this scenario

- Discuss together, putting steps on Post-Its (in just one or two colors)

- Draw in arrows where appropriate

- Then working individually, write down pain points (ideally, on different colored Post-its than above)

- Go around the table discussing the Pain Points, building on each other's thoughts

Ideation

- As a team, select one or two pain points you'd like to ideate on first

- Working individually for 5 minutes, write or draw ideas on Post-Its to address this pain point **(volume)**

- Going around the table keep adding your ideas using "yes/and" not "no/but"

Prioritization (Power Dotting)

- You only have so much time. It's possible all the ideas are good and should be addressed but…

- Select two that you are most intrigued by, that you have a hunch could be successful

- Using TWO dots, "vote"(you can spread out your dots or use both for the same idea)

IMPACT

COST

Z

IMPLEMENTATION
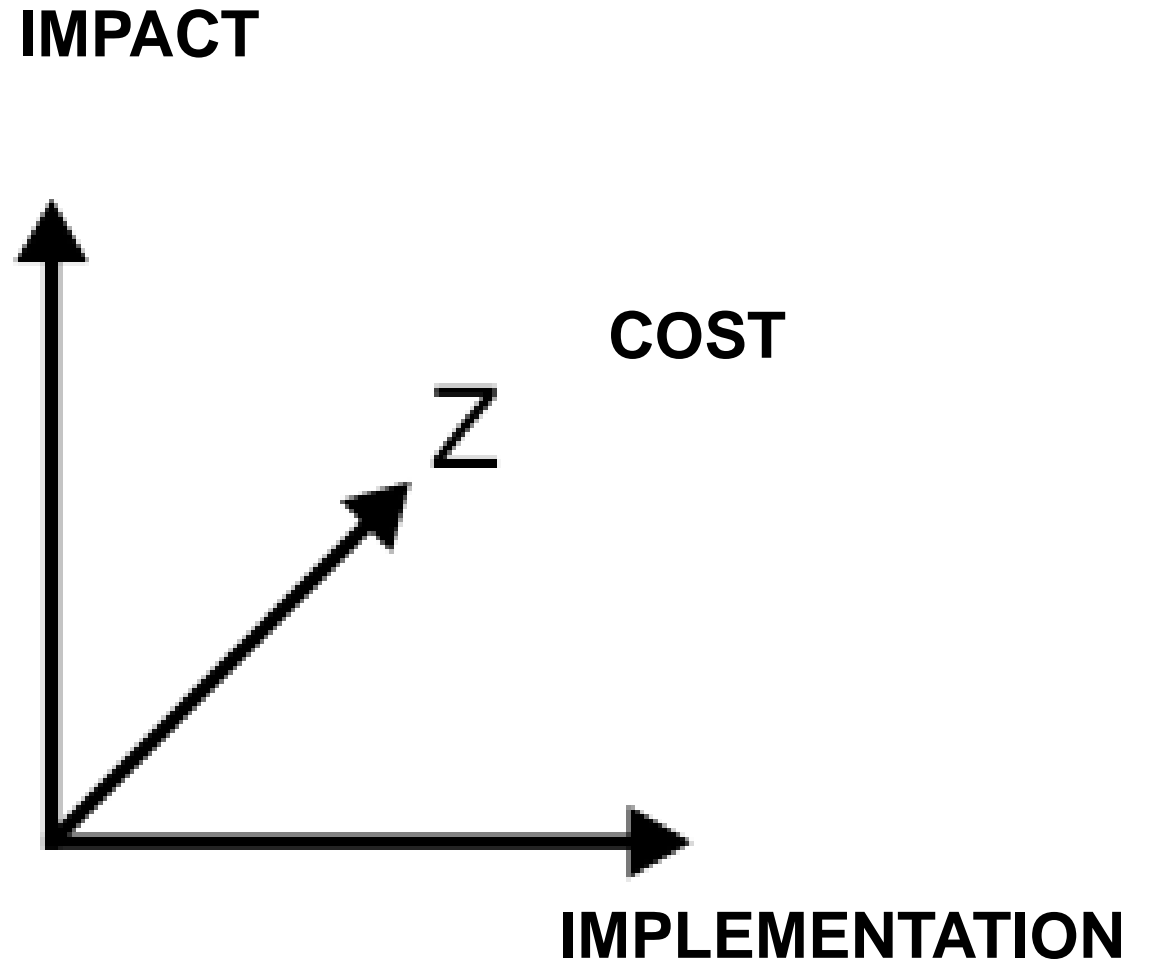
Summary

- Design thinking begins with empathizing with users and understanding their needs
- It is compatible with and essential to any product or process development where humans are the end-users
- We referenced six tools / methods today:
  - Design Prompt Using a "How Might We Statement"
  - Question Burst
  - Empathy Map
  - User Experience Journey with Pain Points
  - Ideation / Divergent Thinking
  - Power Dotting

- A one-hour gathering will not solve for or fix all our problems, but it can start us on the path to more effective solutions

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THANK YOU!

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