HARRIS POLICY INNOVATION CHALLENGE

INNOVATION TOOLKIT FOR PENSION REFORM

PROFESSOR WILL GOSSIN
FALL 2023
TODAY’S GOAL

Prepare you to think creatively and analytically

Establish a New Approach to the Challenge

Identify the Right Question to Ask
What Is Innovation?

MisMatches are Secrets

2 Skills

Analogic Simulations
Risks to the Right Question

Creative

Analytical
“There are so many people, working so hard, and achieving so little.”

Andy Grove, CEO of Intel
“A Problem Well-Put is a Problem Half-Solved.”

John Dewey
“If I had an hour to solve a problem and my life depended on it, I would use the first 55 minutes determining the proper question to ask.

For once I know the proper question, I could solve the problem in less than five minutes.”

Albert Einstein
“When an Idea is Good Nothing Can Stop It.”

Eugene Meyer, Washington Post
Definitions
All Innovations are Secrets

True, but to Know

Easy
Difficult
Impossible

Conventions
Secrets
Mysteries
The Purpose of Innovation

Introduce and Scale the Adoption of a New Human Experience Based on a Discovered Secret
1st: Who, in What Situation?

2nd: How to Interpret it?

3rd: How to Shape it to Fit?

4th: How to Scale it?

Learn from the Extreme Users of a Situation (Mismatch)

What is their experience and how should we frame it?

What behaviors should be changed in what sequence to deliver value?

What adoption strategy is required?
MISMATCHES ARE THE SECRET
Innovations Exist to Change Behavior

Questions are: Who, Where, & to What End?
MisMatches
The Whole World is Designed

Behavior = ( Person x Environment )

Experience
Outcomes
Barriers
Frictions
100% of Situations Matched

Each Choice Either Increases or Decreases the Mismatch
(and a Product’s Effectiveness)
Achieving Failure

Great Solutions Reflect a Deep Understanding of What’s Essential to the Right Situations
NEW INTERPRETATIONS ARE REQUIRED
The single hardest part of building…is deciding what to build.”

Software Design Pioneer, Fred Brooks
ZOOM INTO THE SECRET

Framing the Issue ➔ Insight into Structure ➔ What to Build

*Mismatches - who struggles to achieve the JTBD, but wants it?*
WHAT IS THE...

PENSION PROBLEM

**Feel Your Mind Leap to Radically Different Solutions

Political Discipline
  To Fund Responsibly
  To Not Overpromise

Actuarial Model Failure
  Bad Assumptions
  Not Insulated from Future Risk

Benefits too Generous
  Population Shape is Untenable
  Need more Workers/Immigration
HOW DO WE ENSURE THAT WE DESIGN THE RIGHT SOLUTION?
The *Secret* is often in How You *Frame* It

What is this problem really about?
Human-Centered Design

- Empathy driven
- Build to Learn → Behavior
- Interpretation (Steve Jobs)

Framing the Problem
- Human vs Engineering/Institutional
The elevator is slow.
New motor
New algorithm

This wait is annoying
Install mirrors
Play music
Install hand sanitizer

Elevator Demo, Chicago World's Fair
Leverage Diverse Experiences (*Analogs)

Differentiate:
1. Surface &
2. Structural Dimensions of the Problem

Leverage Diverse Experiences (*Analogs)
HIGHERLY CITED STUDY CONCLUDED:

Successful Problem Solvers Are Better Able to Determine the Deep Structure of a Problem Before They Proceed to Match a Strategy.

Reframe It!
- What is THE problem...really?
Problem Solving

% success

Interpretation of Deep Structure

% success

Strategy

% success

Planning

% success

Execution

%
Inside View - (Kahneman) - Bounded Creativity
Analogical Thinking - Surgery Exp

Express & Identify: Structural Commonalities and How They Inform the Problem
Common Mistake

Picking Only 1 Analog & In the Same Industry
1 year, 4 Labs (Large, Small, All men, All women)

Exp: E.Coli - Proteins Stuck in Filter
  - Lab 1 - All E.Coli experts (months)
  - Lab 2 - Chem, Bio, MD, Genetics (minutes)

Lab Meetings Were Key to Unpacking the Difficult Parts of Work

More Analogies = More Breakthroughs (variety of domains)

The Harder the Problem, The More Distant the Analogy Required (why?)

Even “Narrow” Diversity Transformed Teams
• Created Intranet to Facilitate Analogical Thinking
• Increase access to “reference classes”
• Exp: “Post-Merger Integration”
  • Will.i.am the Conqueror - (England with Norman Kingdom)
  • Sherlock Holmes - (small details)
  • Prussian Strategist - (momentum in victory)
ANALOGIC

SIMULATIONS

Health Care

Cryptography
A state-of-the-art hospital uses neural networks to predict patient needs, manage & optimize resource allocation, and even assist in diagnoses.

However, there's an issue: the neural network can only be trained in real-time and loses its training if powered down. The city faces frequent power outages. How can the hospital ensure continuous learning and functioning of its neural network without interruption?

**Analogic Prompts:**
- How should we define this problem? (Who, In What Situation?)
- What are the structural elements that define the Situation?
- What is this like? How might we think about this?
- Who else does this well? How would our stakeholders view this problem?
- Where else does this kind of phenomena occur?
  - What makes that similar to this?

**GUIDE:**
- 8MIN | SOLO + NETWORK TO FIND NEW ANALOGS (3 TEAMMATES)
- 8MIN | SOLVE IT - WHAT IF...
- 8MIN \ SHARE OUT + INSPIRATION
In a future battlefield, all communication is encrypted using quantum cryptography, making eavesdropping virtually impossible.

However, the quantum encryption devices are bulky and can only encrypt messages at specific locations. Soldiers need to communicate securely while on the move. How can they ensure secure communication without always accessing the quantum devices?

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Take-Aways

Innovations Are Secrets About MisMatches

Effective Problem Solving Depends on Your Interpretation of the Problem (the right question)

Discover the Deep Structure of Problems: Framing, Analogs

Analogies Reveal Structural Dimensions