Using Design Thinking to Build Innovative Solutions

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Topics for Today

- What is Design Thinking?
- What are the benefits of Design Thinking?
- Who is using Design Thinking?
What is Design Thinking?

- A structured process for problem solving
- Developed to address “Wicked” problems
  - Complex problems with multiple stakeholder groups
  - Can be used for technology, process, policy, etc.
- Purpose is to
  - Facilitate innovative solutions
  - Reduce Risk
Principals of Design Thinking

- Structured process, focusing on the users
  - Use steps and methods that are defined
  - Power is in the whole process, not individual steps

- Scientific method
  - Consider ideas to be hypotheses to be tested, not definite solutions

- Diverse teams
  - Diversity in terms of roles to maximize the knowledge, perspectives, and connections of team members
  - Demographic diversity not as critical here
What is the History of Design Thinking?

- User-Centered Design (UCD) has been around for a long time.
  - Usability Testing, Focus Groups, Observations, etc.
- Several organizations operationalized UCD into a more structured process
  - IDEO, Stanford d.School, among others
  - Late 1980’s / early 1990’s, although foundational work was earlier
What is the Design Thinking process?

Different organizations have their own take, but they all follow similar stages.

From Stanford:

- Empathize – Connect with and understand the users
- Define – Identify (reframe?) the core problems
- Ideate – Brainstorm lots of ideas
- Prototype – Narrow down the ideas and build prototypes
- Test – Use the results to support decision-making
Stanford’s Design Thinking Process

Empathize → Define → Ideate → Prototype → Test
Another Approach to the Process

What is?  What if?  What wows?  What works?

Jeanne Liedtka
Benefits of Design Thinking

- Formal process provides structure.
  - It provides a strategy to those new to this approach.
  - It supports collaboration among team members.
- Data-driven decision-making aligns team members’ thinking.
Benefits of Design Thinking

- Early focus on understanding users --
  - Allows teams to agree on the mission early.
  - Provides a strong basis for later steps in the process.

- Experimental approach of presenting ideas as hypotheses –
  - Reduces the risk and cost of failure
  - Reduces cognitive biases
  - Allows for easier acceptance of failures
Benefits of Design Thinking

- Diverse teams are better able to pivot as situations change.
  - They have a thorough understanding of users.
  - Diversity provides the breadth of knowledge and contacts needed.
Possible Risks of Design Thinking

- Research has primarily been done with successful projects
- Diverse team can lead to disagreements
- Focus on testing everything could delay decision-making
Gov’t Projects Using DT

- Department of Labor – New ways to assist out-of-school youth and other disadvantaged workers
- USDA’s Food and Nutrition Services increased enrollment in the National School Lunch Program
- VA transformed programs to better meet veterans’ needs
- BLS
  - Current Employment Statistics (CES)
  - Innovation Board
Government Support for Design Thinking

- Innovation.gov (GSA)
  - The Better Government Movement
- Training and Facilitation in UCD
  - The LAB@OPM
  - HHS IDEA Lab
  - State Department’s Collaboratory
Summary

- Design thinking can lead to –
  - More innovative solutions that better meet users’ needs
  - Improved collaboration among team members
  - Lower risk and cost of failure
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