

Using Design Thinking to Build Innovative Solutions

Jean E. Fox

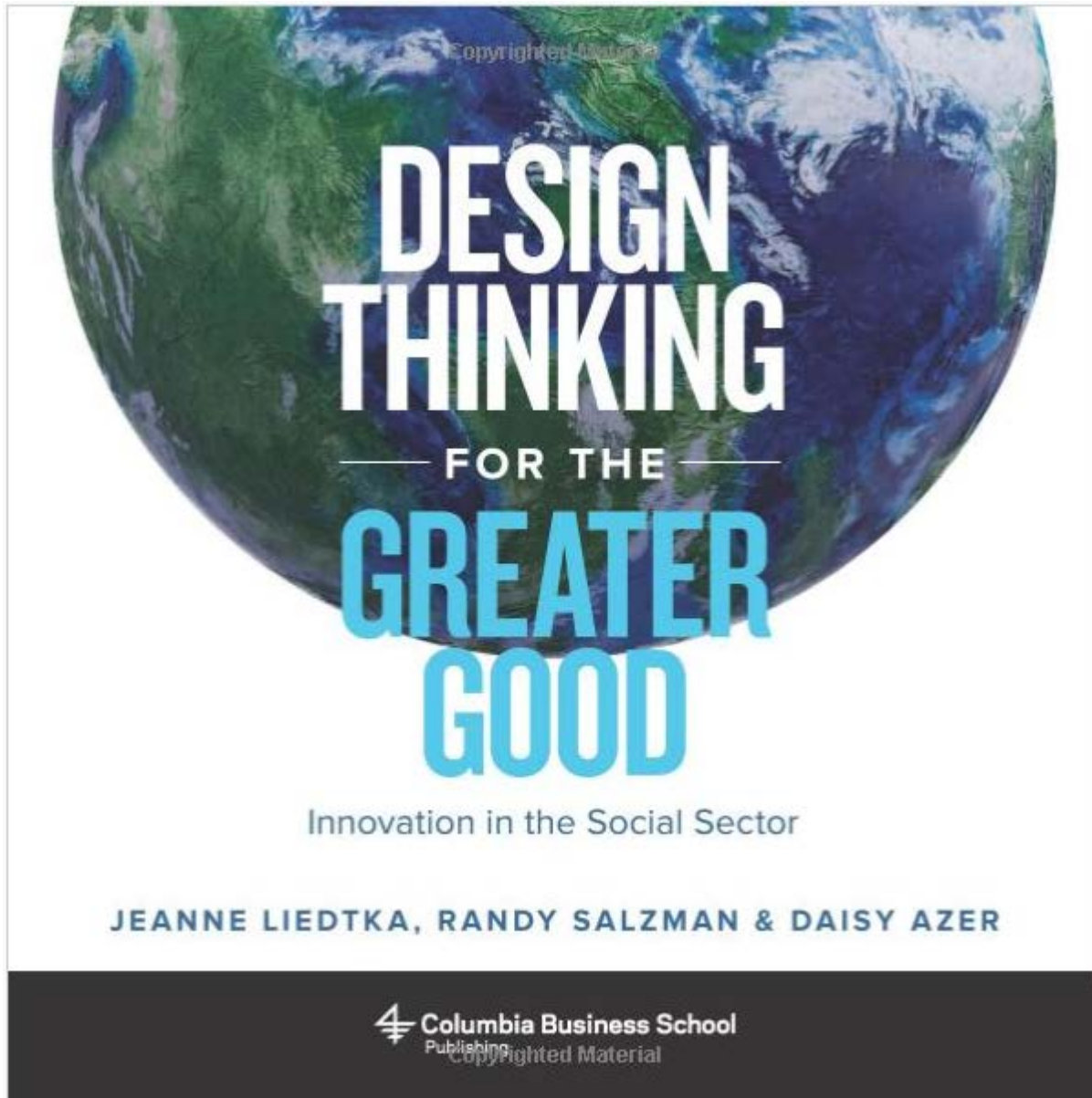
U.S. Bureau of Labor Statistics

FedCASIC

April 17, 2018

The views expressed in this presentation are solely those of the presenter and do not reflect the views of the Bureau of Labor Statistics.





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

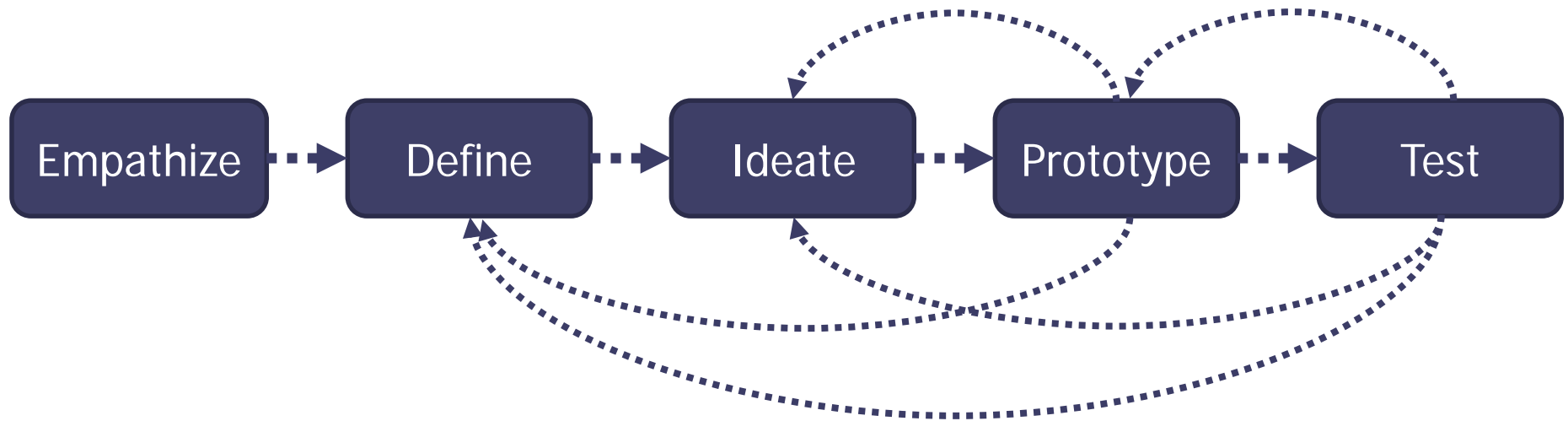
What is the History of Design Thinking?

- 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

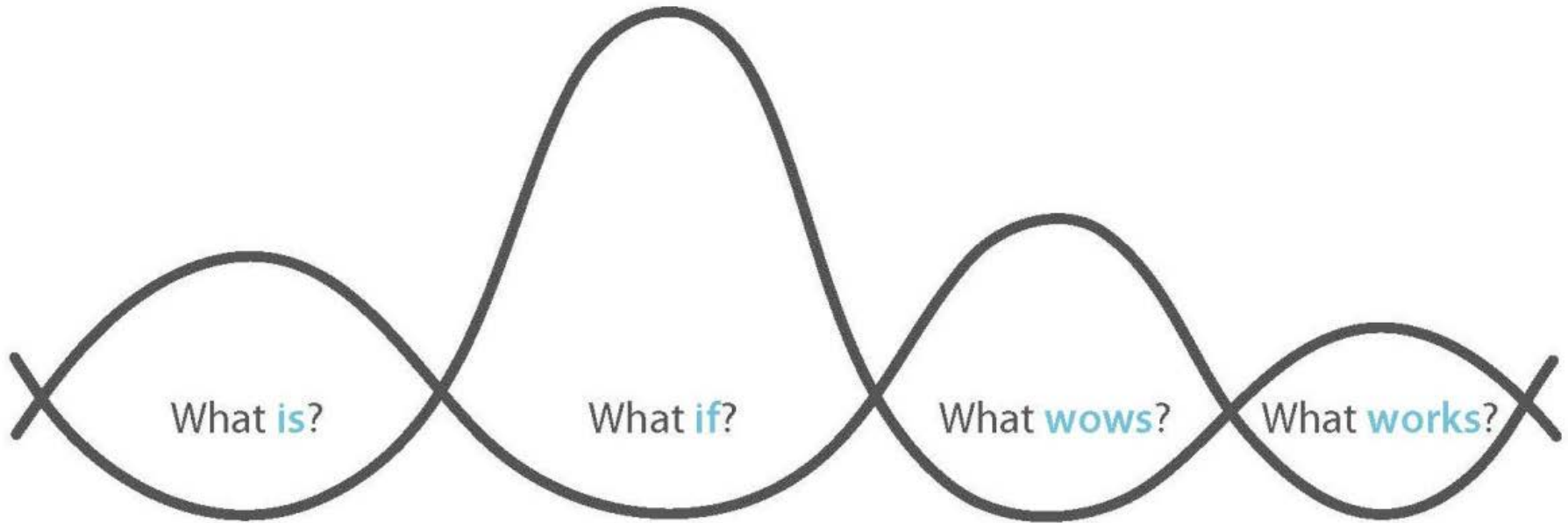
What is the Design Thinking process?

- 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



Another Approach to the Process



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

Contact

Jean E. Fox

U.S. Bureau of Labor Statistics

Fox.Jean@bls.gov



References

Liedtka, J. (2017). Evaluating the Impact of Design Thinking in Action. In *Academy of Management Proceedings*, Vol. 2017, No. 1, pp 1-6.

Webinar by Jeanne Liedtka on Design Thinking in the government sponsored by OPM:
<https://www.youtube.com/watch?v=HffIKCrTB1Y&feature=youtu.be>.

Stanford's Design Thinking framework:

<https://dschool-old.stanford.edu/sandbox/groups/designresources/wiki/36873/attachments/74b3d/ModeGuideBOOTCAMP2010L.pdf?sessionID=8af88fee76ecd1fb7879c915073461486c425622>

DOL Customer Centered Design Challenge <https://blog.dol.gov/2016/02/18/how-wioa-is-inspiring-innovation-locally>

USDA's program

<https://obamawhitehouse.archives.gov/blog/2015/09/04/using-human-centered-design-make-government-work-better-and-cost-less>

VA's Design Thinking program:

<https://www.blogs.va.gov/VAntage/25450/a-toolkit-for-design-innovation-putting-veterans-needs-first/>