

# Project Innovation through Design Thinking



STANFORD UNIVERSITY  
Stanford Center for Professional Development



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## Meet Today's Speakers



**Michael Barry**

A founder of Point Forward  
Consulting Assistant Professor  
Mechanical Engineering Department  
Stanford University (d.School)



**Pamela J. Hinds**

Associate Professor  
Management Science & Engineering  
Co-Director of the Center for Work,  
Technology & Organization



**Robert Katayama**

Program Manager  
Stanford Center for  
Professional Development



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# Project Innovation through Design Thinking

## Our Agenda

### **1. Project Innovation through Design Thinking**

2. Learning More

3. Q & A



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# Project Innovation Through Design Thinking



## **OBJECTIVE:**

**Familiarity with the design thinking process and insight into how it can be used to reframe project opportunities.**

Using design thinking, Embrace created a portable incubator to save the lives of babies in developing countries.





Using design thinking, jet Blue went from \$41M to recover from the 2007 ice storm to \$10M for the one in 2010.



Using design thinking, we discovered that seniors in China aren't lonely, but they miss their children and grandchildren



Using design thinking, the American Heart Association reframed the problem of CPR training in China.



# **DESIGN THINKING:**

**A philosophy and a mindset.**

**Almost everything we encounter  
is designed...**

# **DESIGN THINKING:**

**A philosophy and a mindset.**

**Almost everything we encounter  
is designed...**

**and could be designed better!**

# **DESIGN THINKING:**

**Redesigning experiences of**

- **products**
- **services**
- **processes**

# CASE STUDIES

**EMBRACE**

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**130M babies/year, 4M die in the first 28 days**













**JET BLUE**



**Gate Agents**



**Pilots**



**Reservation Agents**



**Ground Crew**



**Command Center**



**Flight Attendants**



**Baggage Handlers<sup>21</sup>**

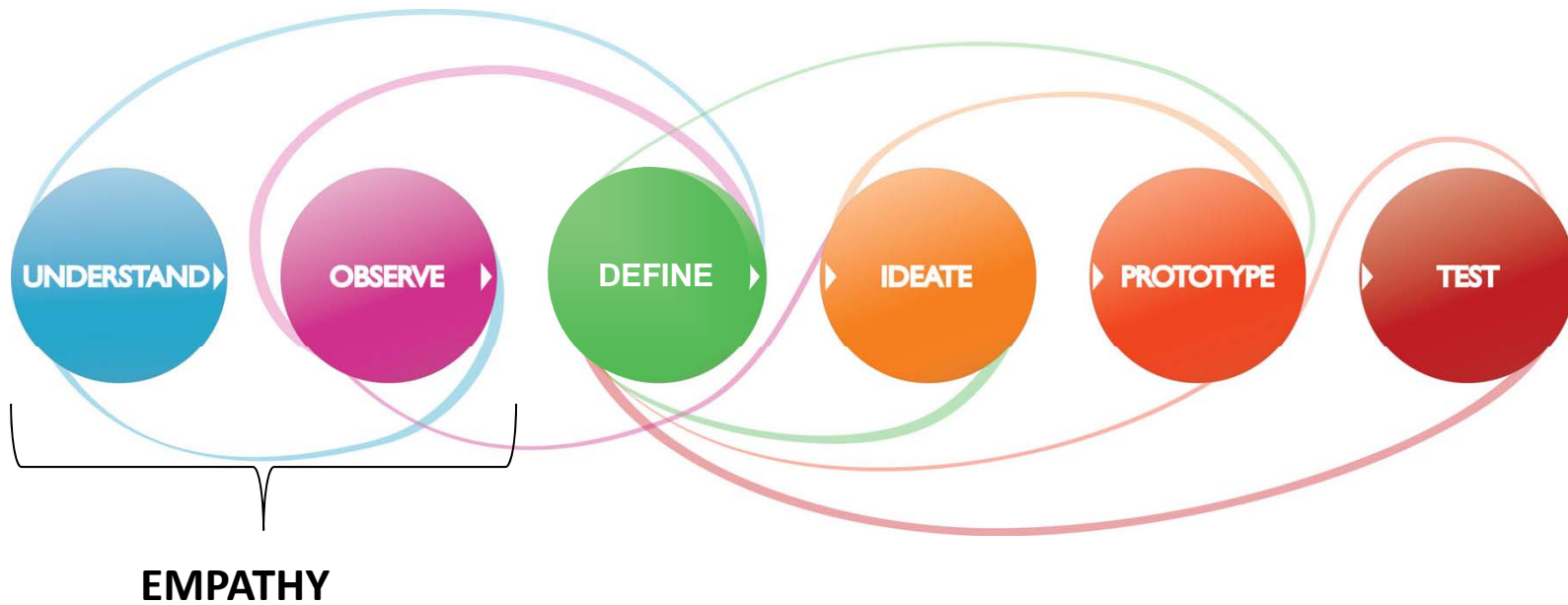




# DESIGN THINKING PROCESS

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# Design Thinking Process





**Why are we doing Design Thinking?**

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$$5 + 5 = ?$$



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$$? + ? = 10$$



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**It lets us address  
“wicked problems”**



**Why are we doing Design Thinking?**

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What's this?



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How are these different?



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**It lets us reframe  
problems in interesting  
ways**





# How much can you make with \$5 and 2 hours?





The first rule in being a wise leader is that you must first define the problem. --  
Confucius



# DESIGN THINKING PROCESS

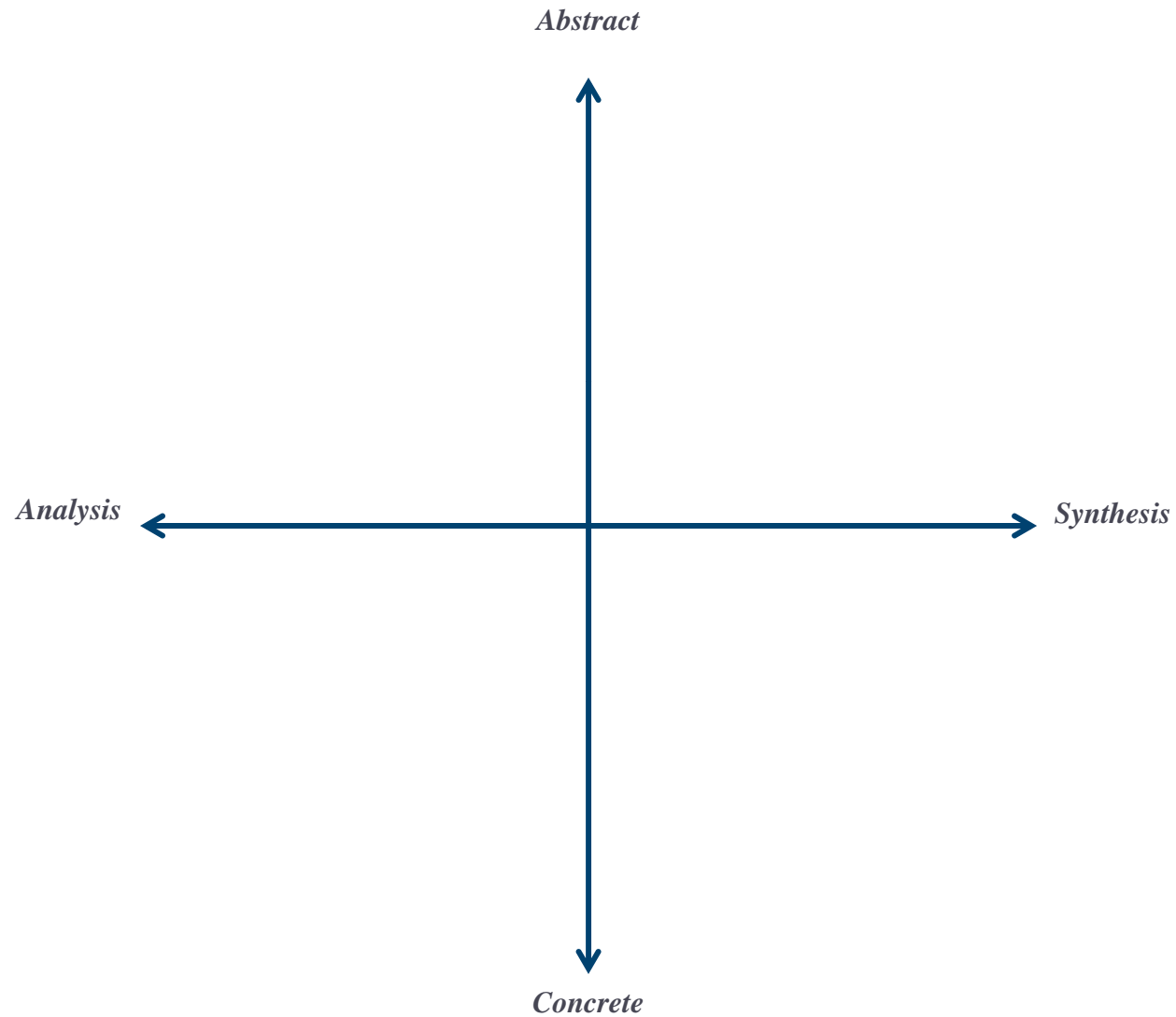
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# Design Thinking Activities

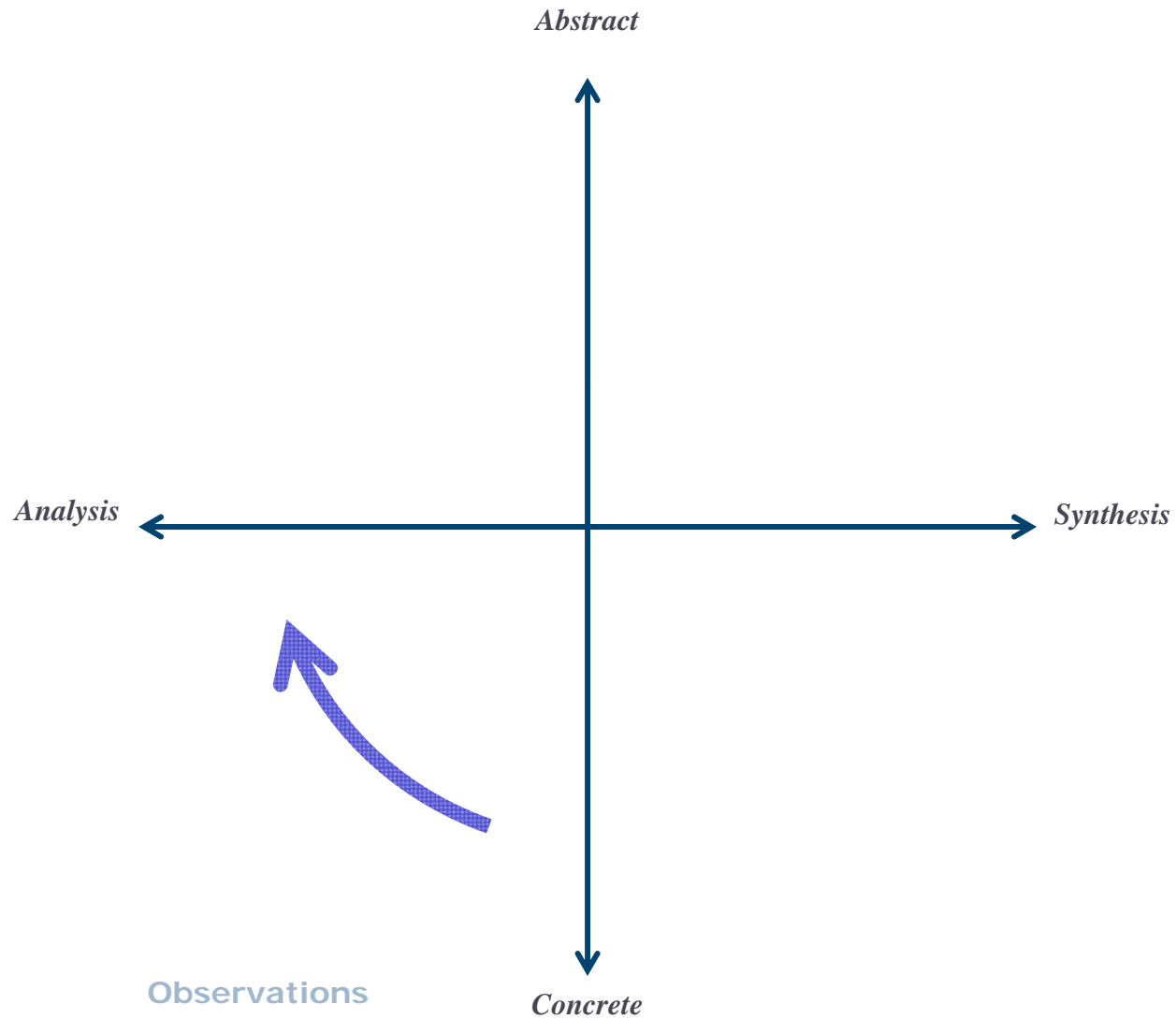


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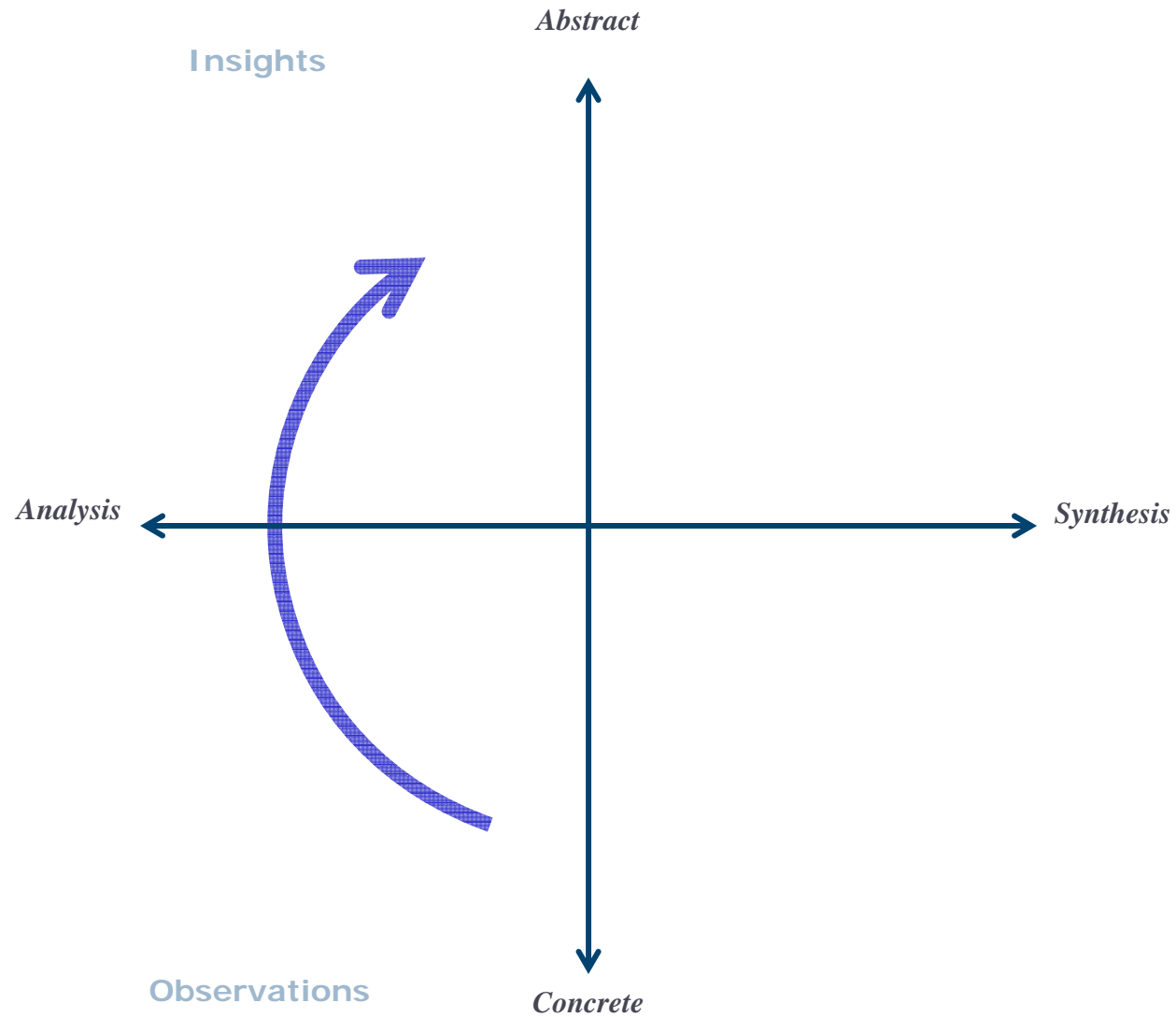
# Design Thinking Activities



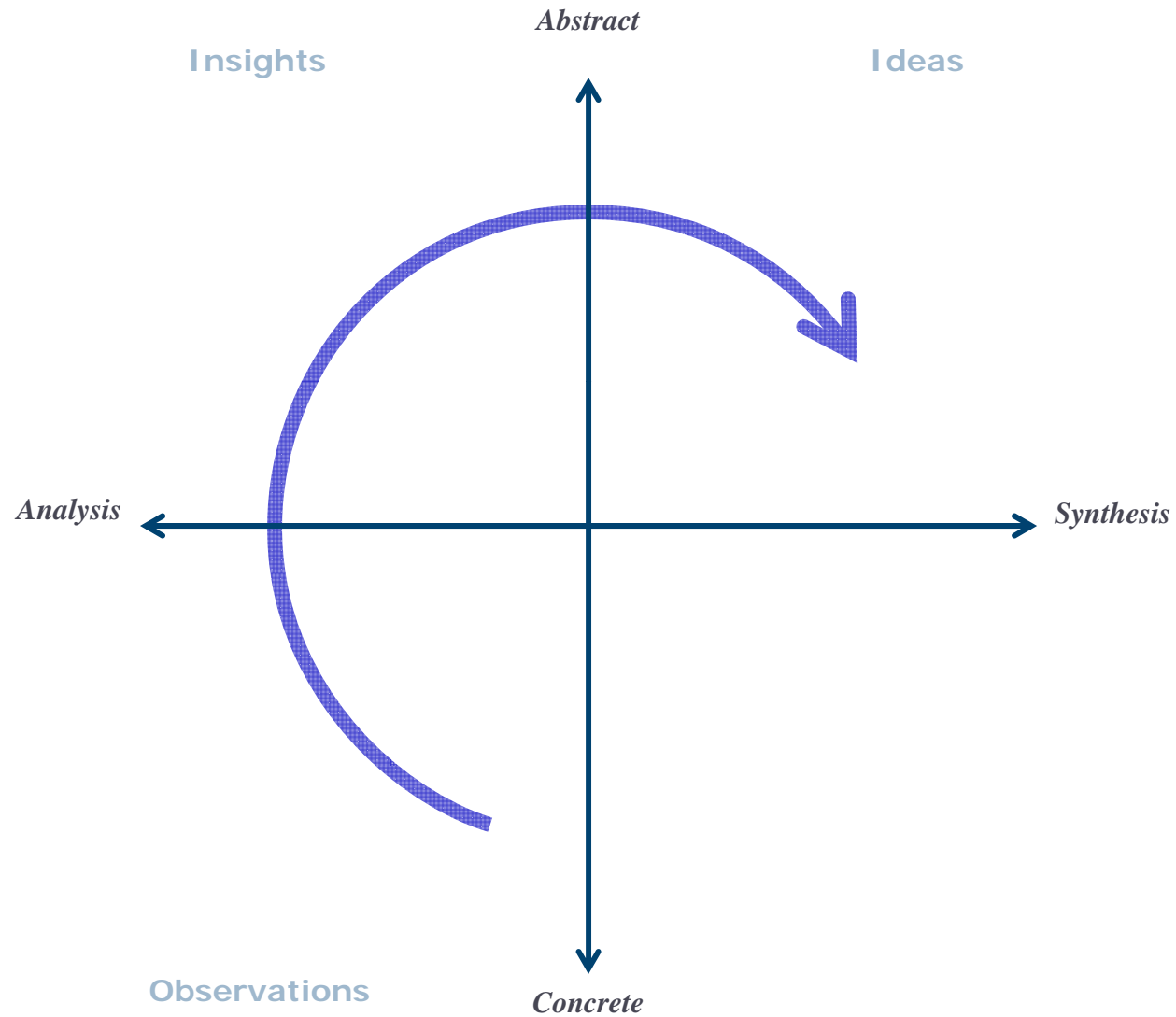
# Design Thinking Activities



# Design Thinking Activities

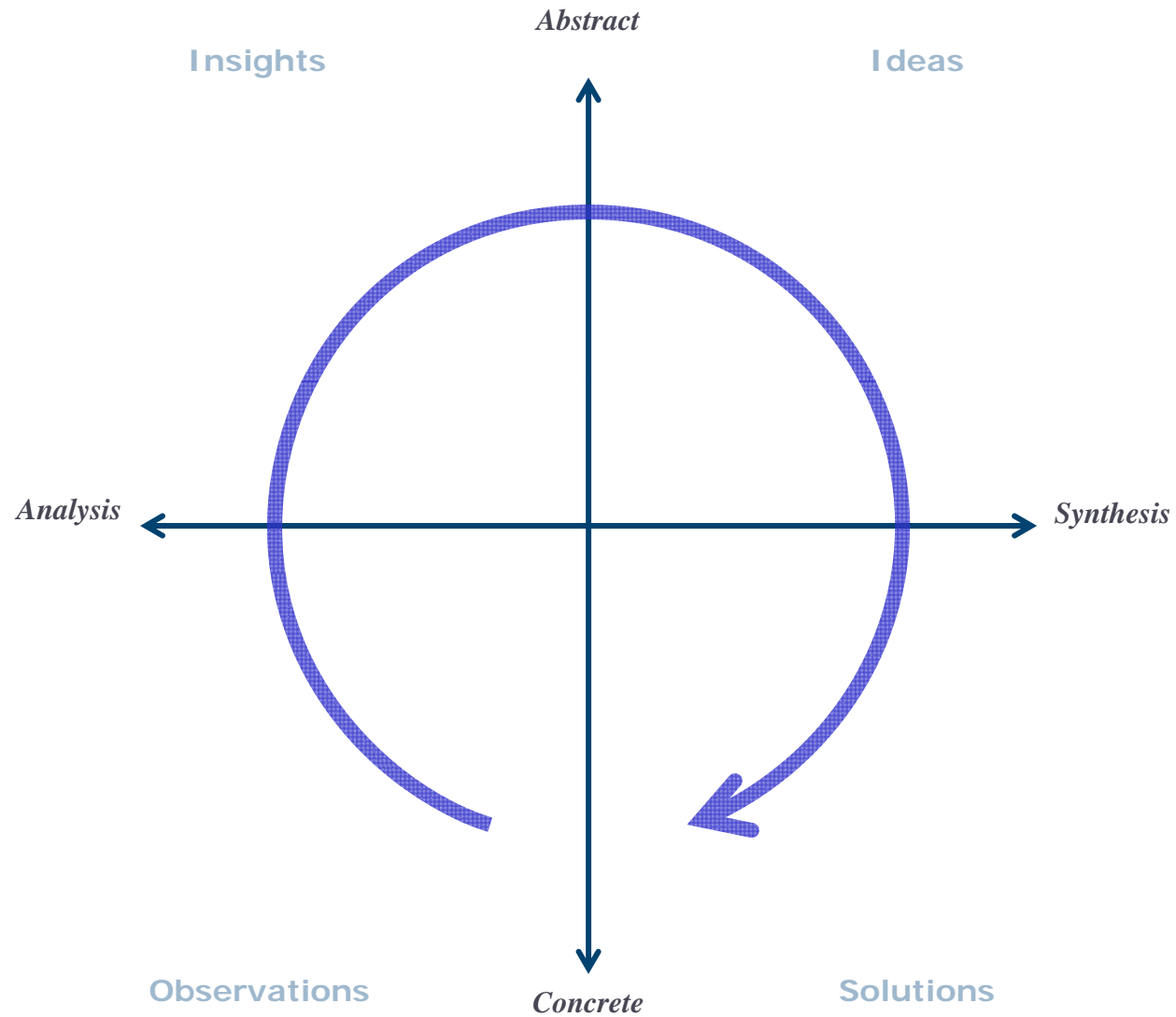


# Design Thinking Activities

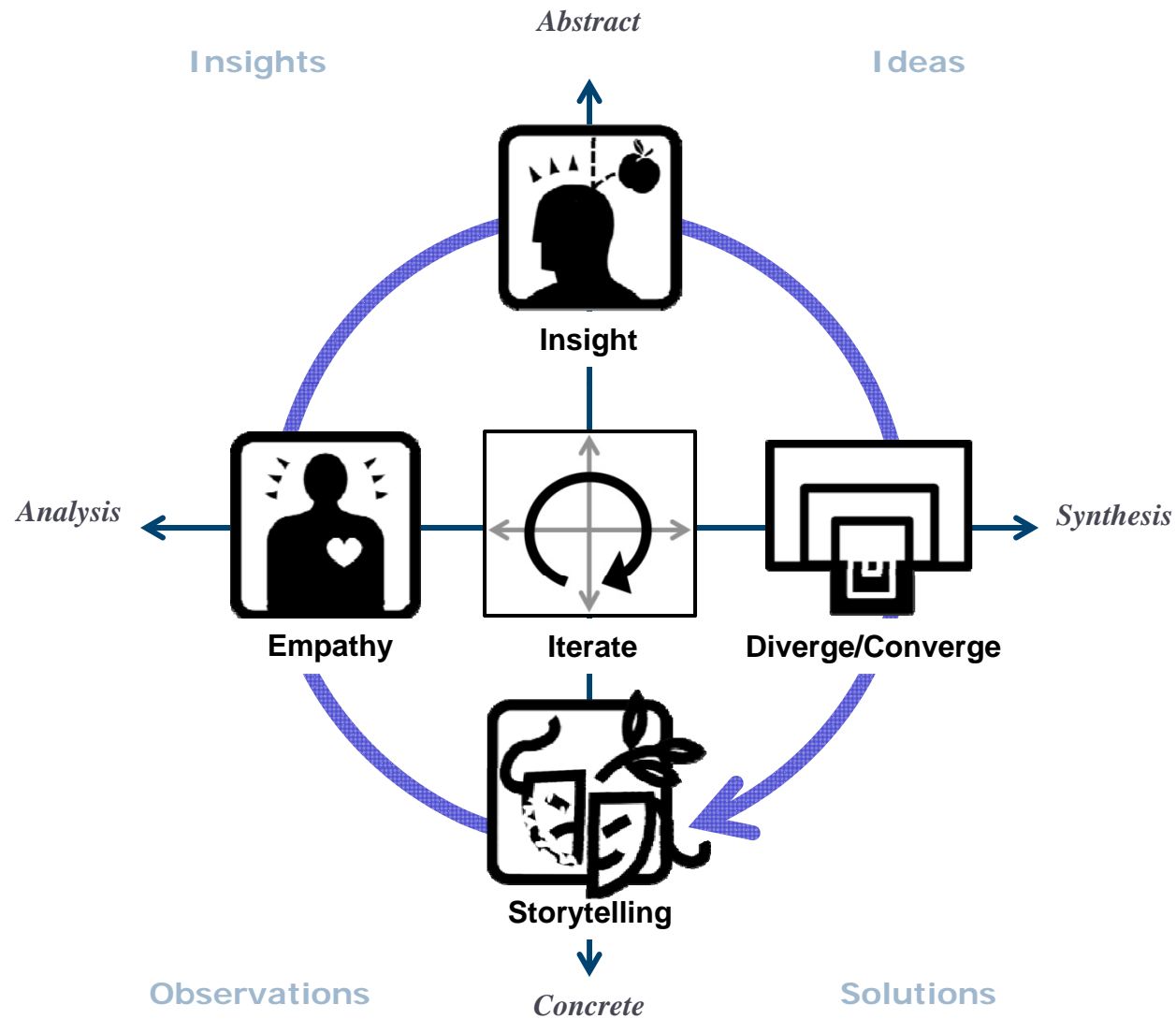




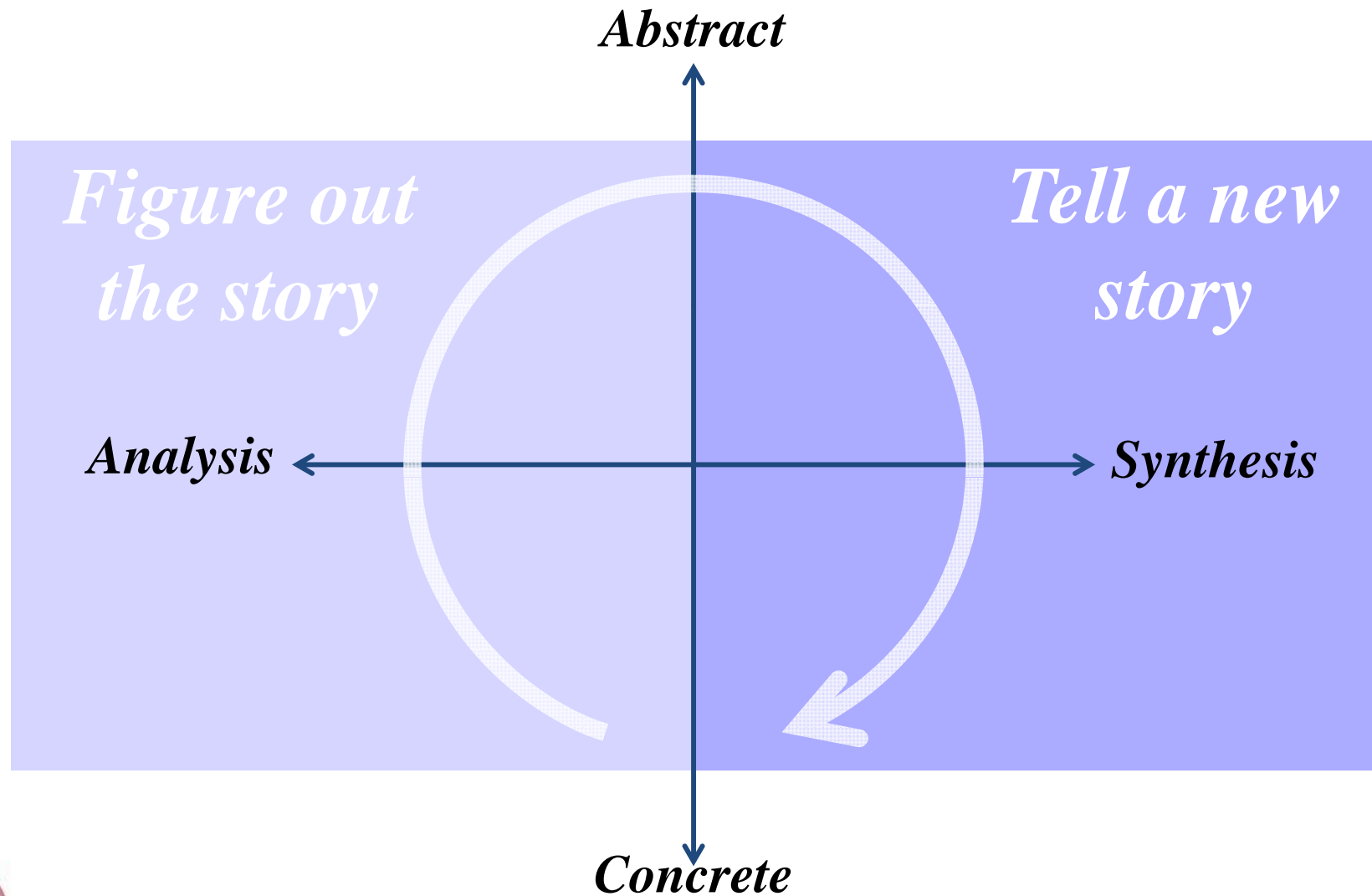
# Design Thinking Activities



# Design Thinking: Underlying Skills

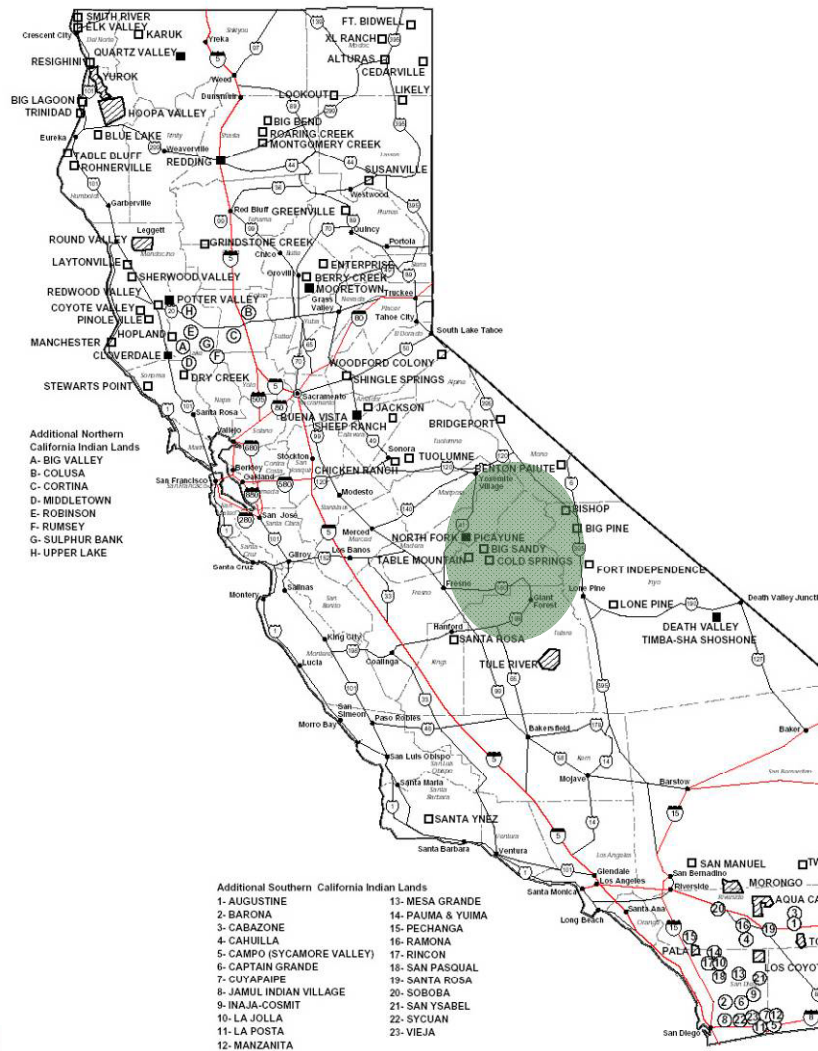


# Design Thinking Stories



**DRILLING DOWN DEEPER:  
The Use, Usability and  
Meaning of Acorns**

# Use, Usability and Meaning



Acorn preparation as practiced by the Mono Indians of Fresno and Madera Counties till about 1923.

Black and White Oak acorns provided all their “bread food.”



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# Use, Usability and Meaning



This Indian woman is preparing acorn meal, a slow difficult process of pounding and grinding with a shaped stone.



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# Use, Usability and Meaning

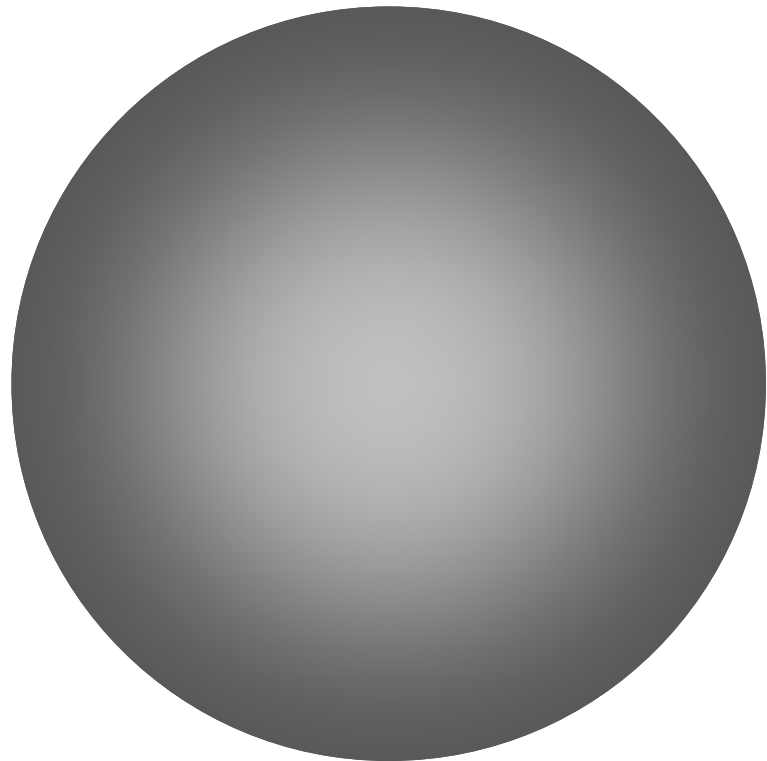


She is using a community mill, a large, flat granite boulder with many holes that serve as mortars.



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# Use, Usability and Meaning



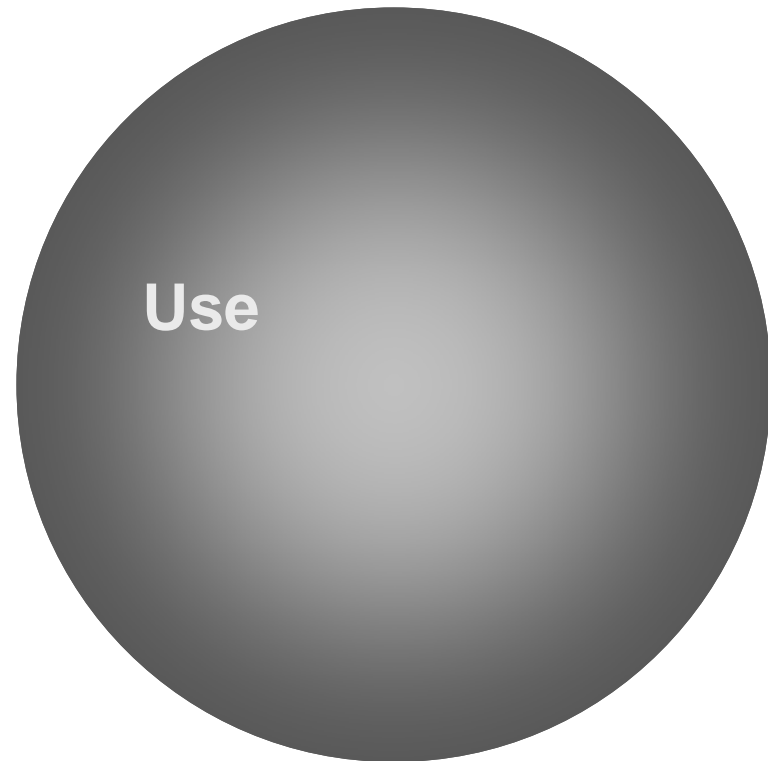


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# Use

The basic functionality of a product:

- explicit need
- task to be solved
- work to be done
- what it has to do

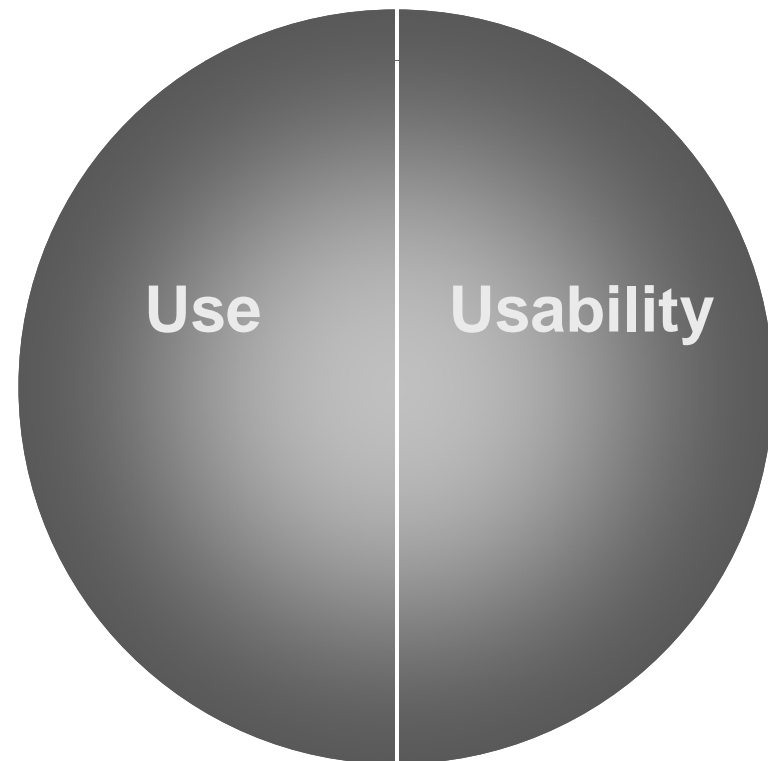


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# Usability

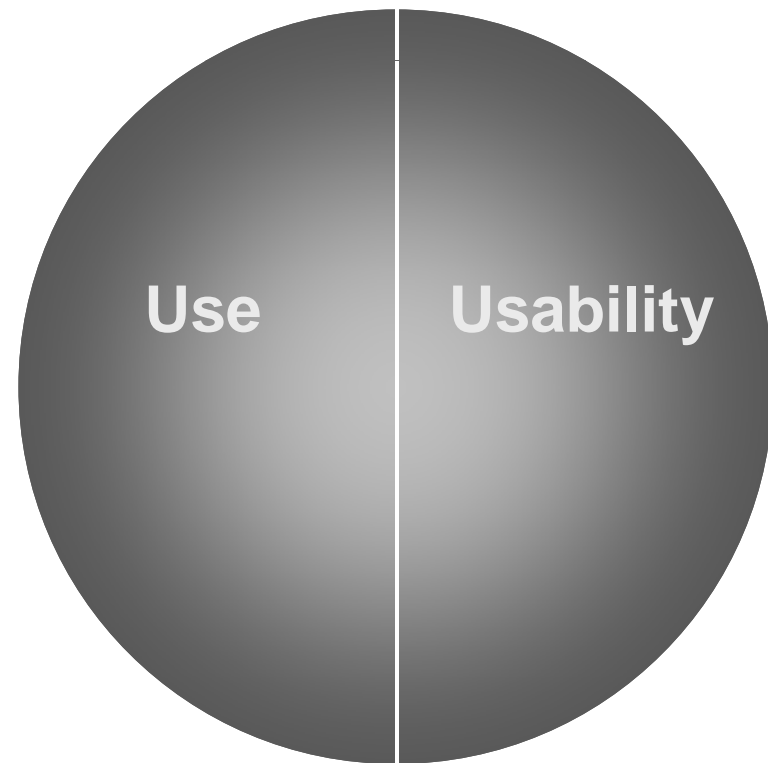
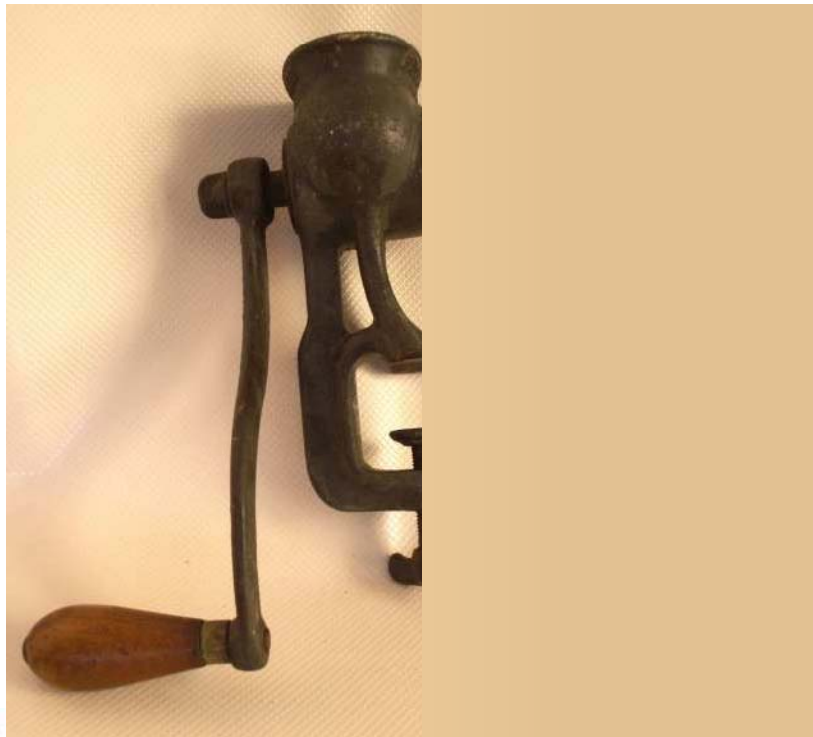
Represents aspects of a product that give the user access to the use:

- physical ergonomics
- cognitive sense



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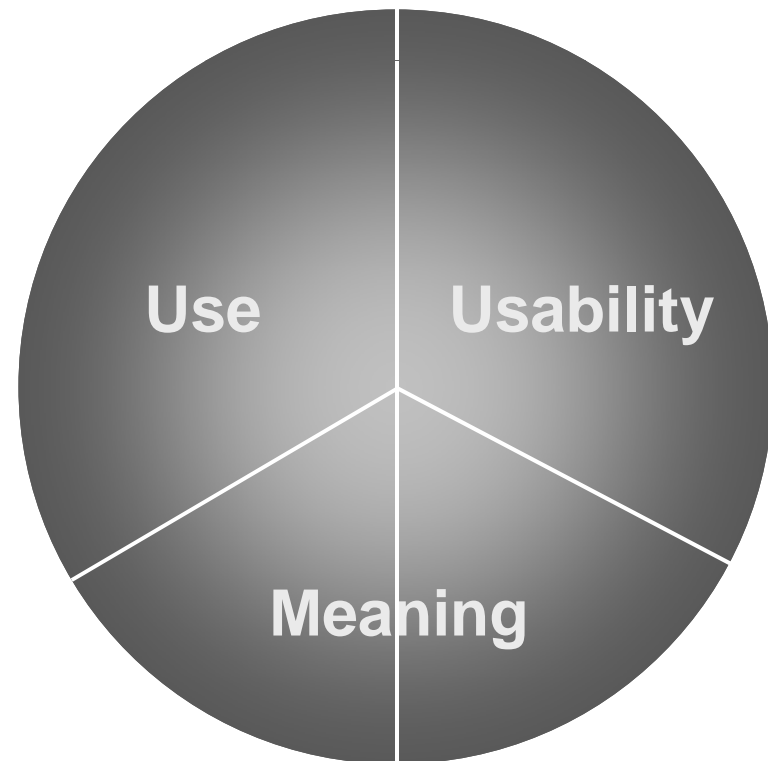
# Use and Usability



# Meaning

## Cultural stories communicating:

- organizing frames
- emotional resonance
- expectations



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# Meaning

Imagine an interview about making bread food from acorns:

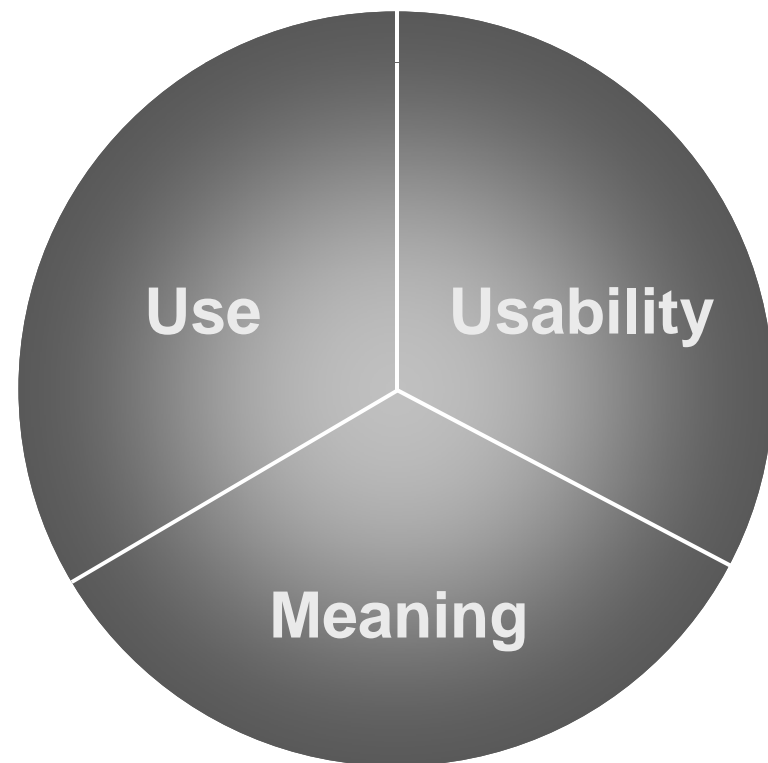
*"It is a hard, time-consuming job for us."*

*"From the village...to this boulder we have always come to sit and work. We sit and pound acorns, gossip, scold the children and make food for our tribe."*

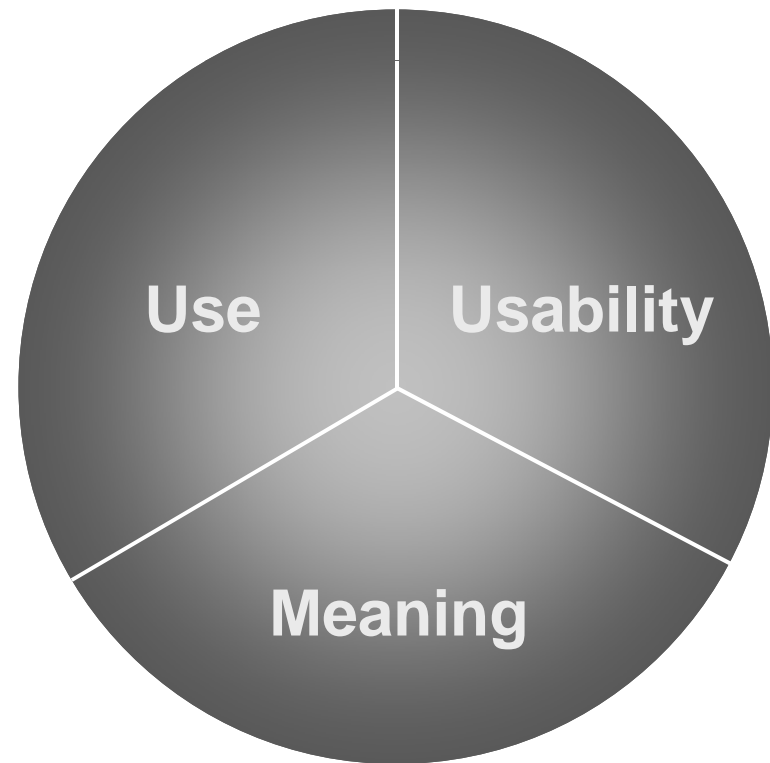
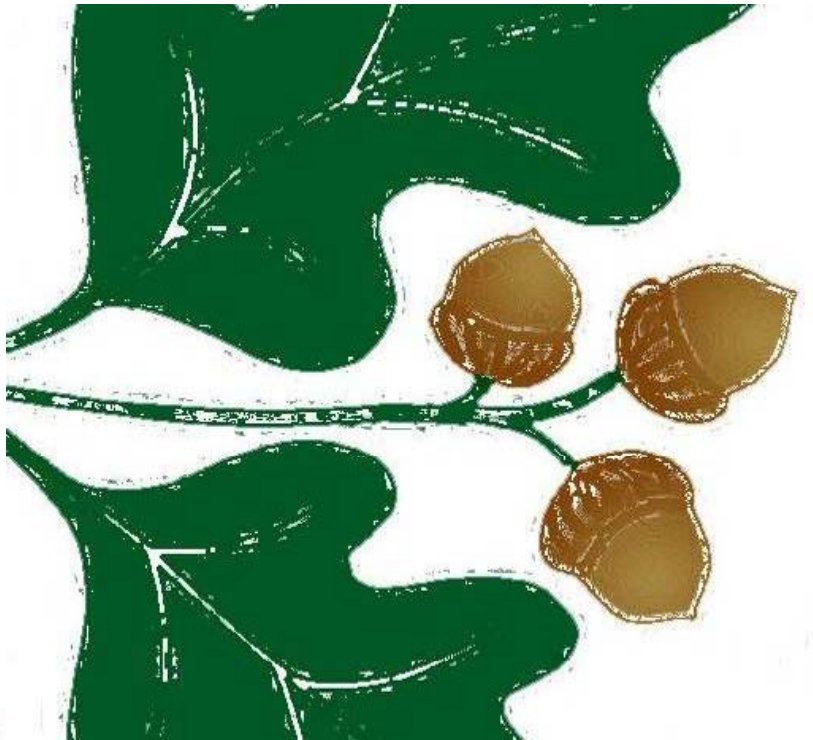
*"The children play nearby and can hear our stories and songs."*

*"To pass the time, we tell stories and sing the songs of our people and how they live in the world."*

*"The acorn is mother to us all and this stone is where we give her life and she gives us life"*

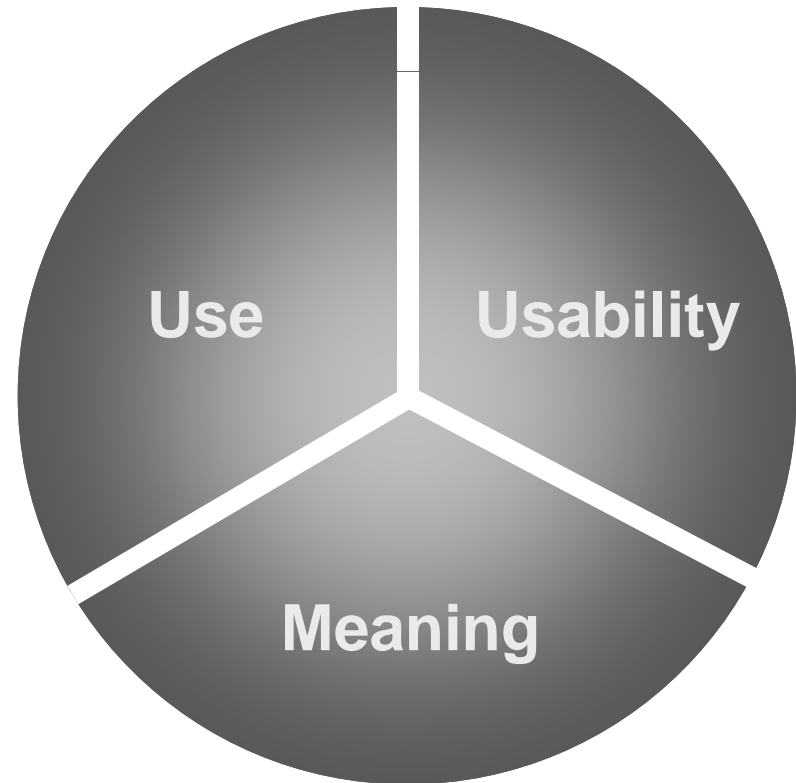


# Meaning



# Needs

Needs are gaps within use, usability and meaning



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**We innovate by creating  
new stories that bridge  
the gaps between Use,  
Usability and Meaning.**





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**Design Thinking does  
more than make better  
things.**

**It can make things  
better.**



# **PROJECT INNOVATION**

# **DESIGN THINKING:**

**Redesigning experiences of**

- **products**
- **services**
- **processes**

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# HOW MIGHT WE CREATE PROJECT MANAGEMENT PRACTICES THAT...



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**... LEAD TO EXCITEMENT AND ENGAGEMENT?**

**... CREATE A MORE COHESIVE TEAM?**

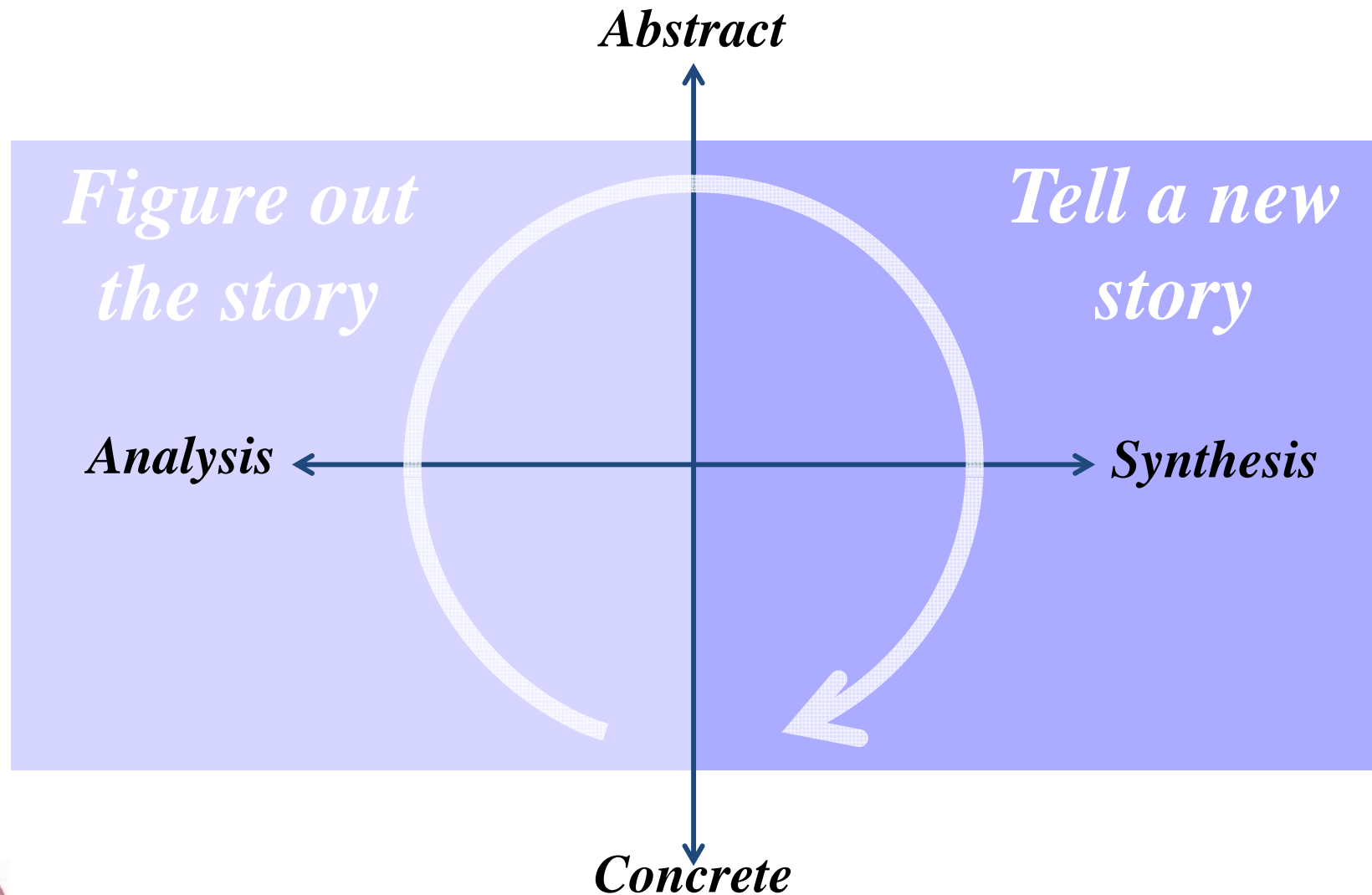
**... ARE DYNAMIC?**

**... WORK FOR MILLENNIALS?**

**... RESONATE WITH PEOPLE AROUND THE  
GLOBE?**



# Design Thinking Stories



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# Project Innovation through Design Thinking

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Stanford University and IPS have created education programs focused on improving strategic execution

## Stanford Advanced Project Management (SAPM) Program



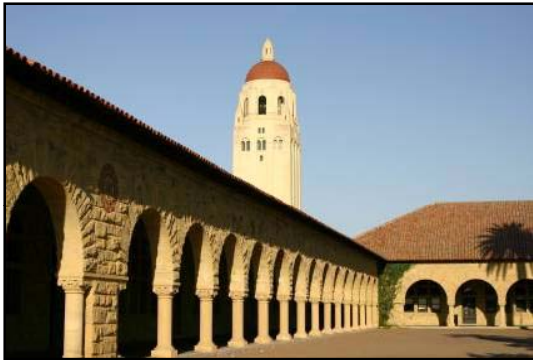
- Directed by Professor Raymond Levitt, Civil and Environmental Engineering
- Developed in partnership between SCPD and IP Solutions, LLC
- Meets the career-long education needs of professionals, managers, and executives





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Courses are available  
at Stanford, online, and at work.



**At Stanford**

Come to Stanford to engage with faculty and network with professionals from around the world.



**Online**

Self-paced, online courses may be accessed anytime, anywhere.



**At Work**

Courses can be offered at your workplace for your entire team and customized to your company.



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# Earn the Stanford Advanced Project Management Certificate

## **Required Courses:**

- **Converting Strategy into Action**
- **Mastering the Project Portfolio**
- **Leadership for Strategic Execution**

## **Elective Courses (select 3):**

- Build Winning Stakeholder Commitments
- Designing the Organization for Execution
- Executing Complex Programs
- *Project Innovation through Design Thinking (September 2012)*
- Leading Change from the Middle
- Leading Effective Teams
- Leveraging the Customer Relationship
- Managing Global Initiatives
- Managing Without Authority
- Project Risk Management
- The Strategic PMO: Projects to Enterprise



# 2012 At Stanford Schedule

■ Required ■ Elective

SEPTEMBER						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
9	10	11	12	13	14	15
	Converting Strategy into Action		Executing Complex Programs			
16	17	18	19	20	21	22
	Converting Strategy into Action		Leadership for Strategic Execution			
	Leading Effective Teams		Project Innovation through Design Thinking			



## Pricing for on-campus courses (per course)

- *Regular Tuition: \$2,750*
- *Early Registration: \$2,475*
- March deadline – **July 31, 2012**

## For more information:

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# Product Innovation through Design Thinking

## Our Agenda

- 1. Product Innovation through Design Thinking**
2. Learning More

**3. Q & A**



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# Q&A



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Mechanical Engineering Department  
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Management Science & Engineering  
Co-Director of the Center for Work,  
Technology & Organization



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Program Manager  
Stanford Center for  
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Thank You for Attending Today's Webinar

# *Project Innovation through Design Thinking*

**September 19 – 21, 2012**

■ Required ■ Elective



**For more information:**

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**Register early and save \$250!**



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