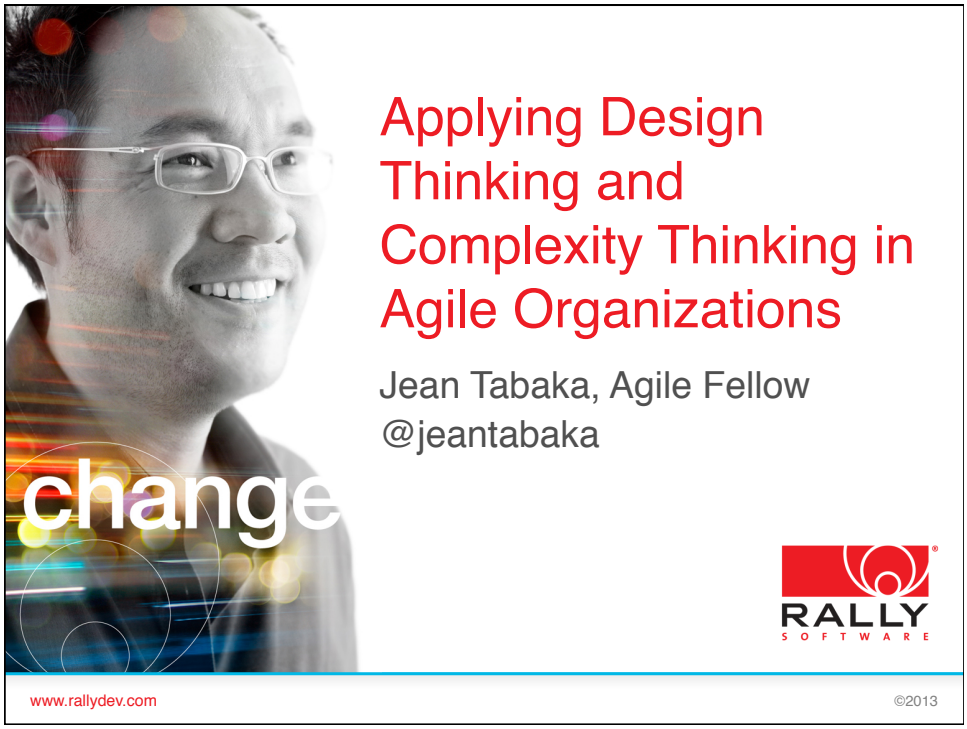
change
Applying Design Thinking and Complexity Thinking in Agile Organizations
Jean Tabaka, Agile Fellow
@jeantabaka
RALLY SOFTWARE
www.rallydev.com
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A Tale of Two People

Jean Tabaka

Charles Sanders Peirce

Johns Hopkins University

Logic

Authors

Dead or alive?

"Chance, Love, and Logic"

And I should care about this why?

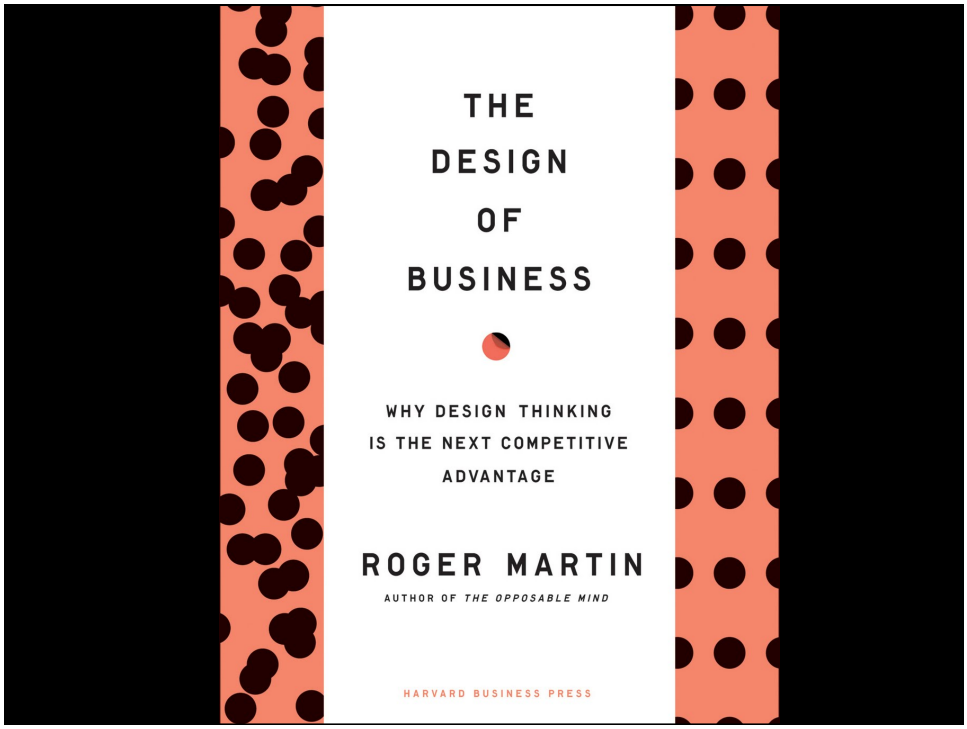
"The sole rule of reason is that, to learn, one needs to desire to learn, and desire it without resting satisfied with that which one is inclined to think."

"In other words. The first rule is 'To wonder.'"

We must scale what we do with empathy

George Kembel

d.school, Stanford University


THE
DESIGN
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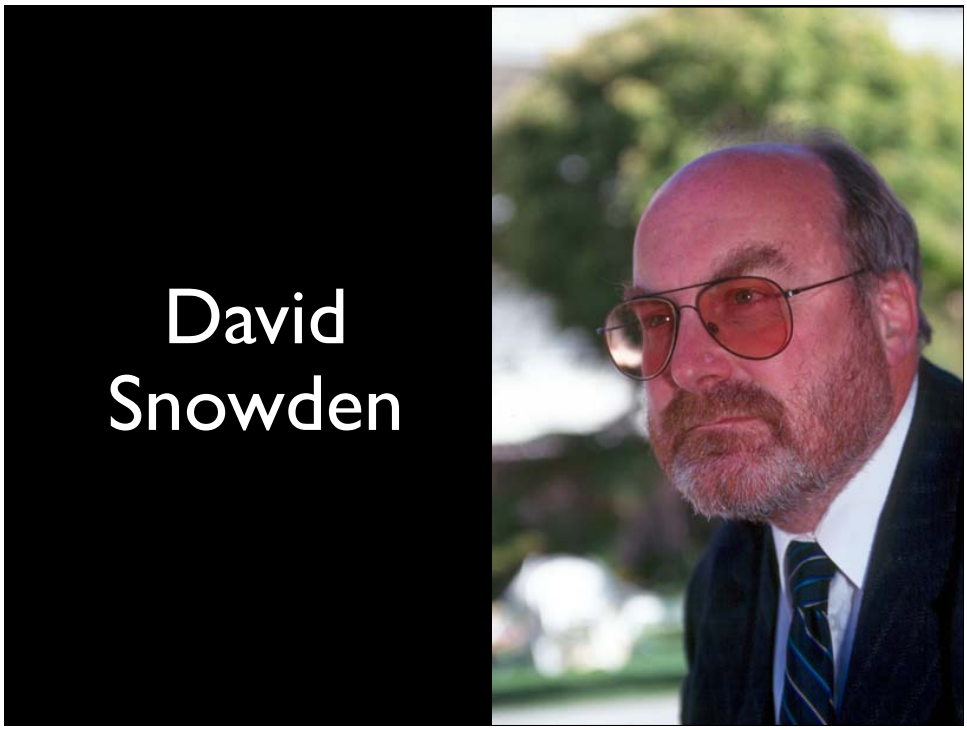
ROGER MARTIN
AUTHOR OF THE OPPOSABLE MIND
HARVARD BUSINESS PRESS


David
Snowden

"It is not possible to prove any new thought, concept or idea in advance."

– Charles Sanders Peirce

Four barriers to inquiry:

1. Assertion of absolute certainty

2. Maintaining that something is absolutely unknowable

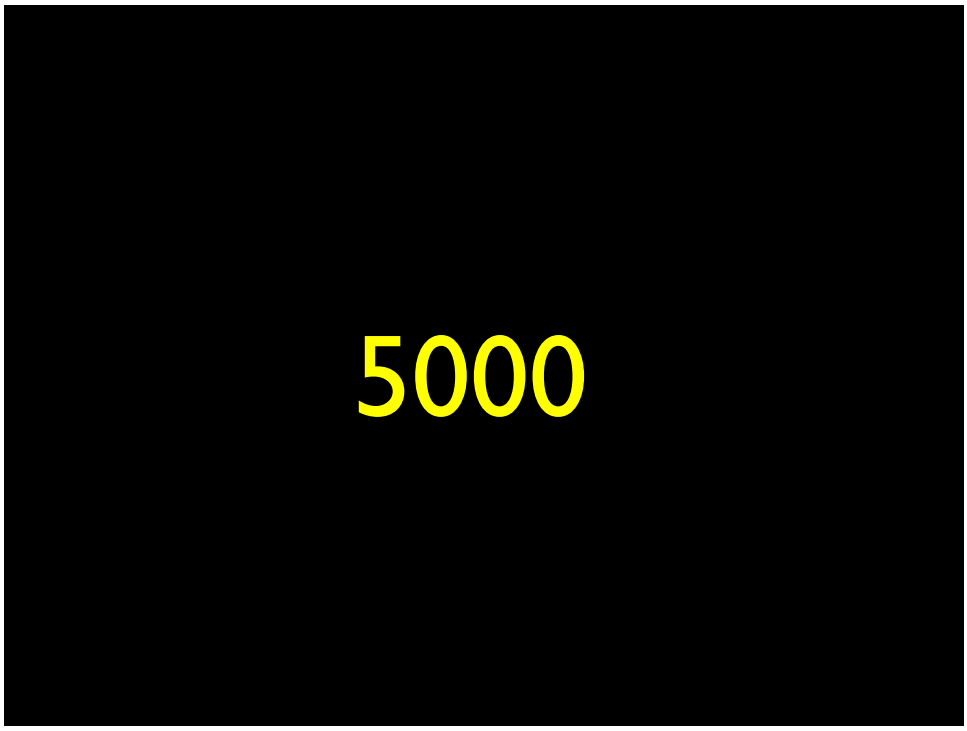
3. Maintaining that something is absolutely inexplicable because it is absolutely basic

4. Holding that perfect exactitude is possible…

…especially such as to quite preclude unusual and anomalous phenomena

An Agile Adoption Story

2002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14

7

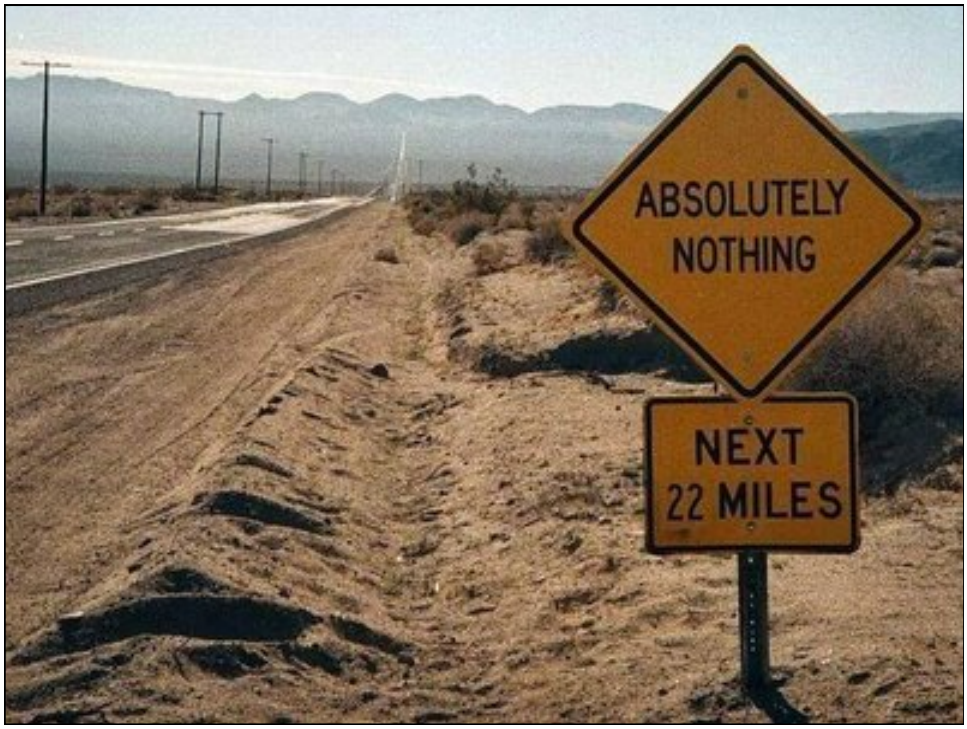
1

1

We created an algorithm we could execute/exploit

"Cookbook Agile"

Why a cookbook won't do



Lack of exploration, lack of empathy and lack of innovation

WWCSPS?

"It is not possible to prove any new thought, concept or idea in advance."

– Charles Sanders Pierce

We live in a world that is complex AND craving innovation

We must embrace vision with hunches, with exploration and execution

We must leverage emergence, bring empathy, and invite "the wildly unexpected"

3 thoughts about Agile

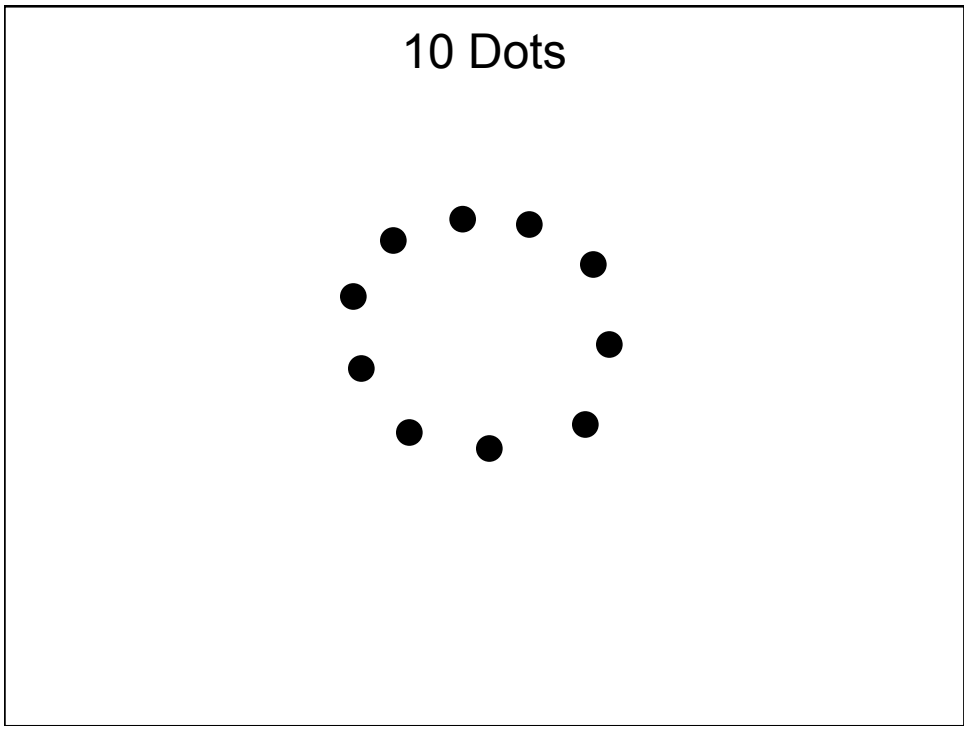
Don’t latch onto one set of Agile practices

Invite emergence of Agile practices and of customer value

Delight in the innovation your empathy brings to your customers

Thrive versus
merely **survive**

Complexity gets complex



Our world of complexity

We can’t afford to latch onto recipes of…

Order

Algorithm

Control

How design thinking and complexity theory help blow things up

"What you predict doesn't come true."

"What worked yesterday, doesn't seem to be working today."

"What you don't know is unknown."

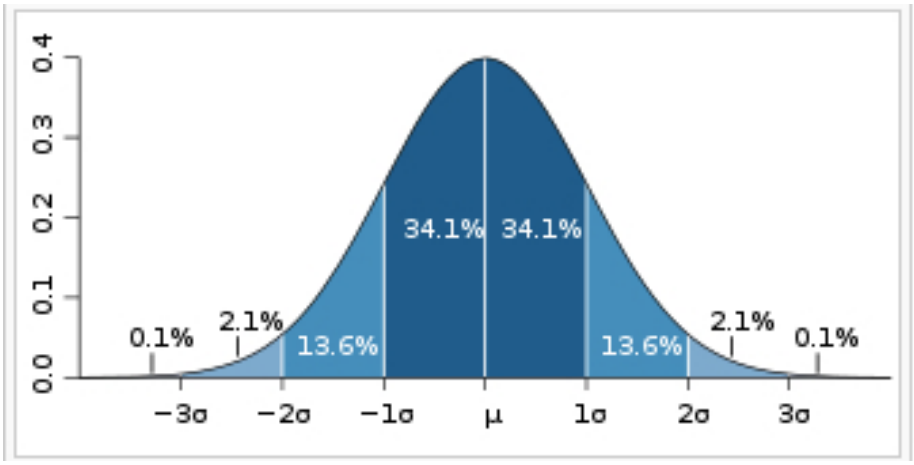
Analysis and induction alone cannot manage complexity

We **must** invite abductive logic: multiple possible explanations

We **must** invite mystery to allow innovative patterns to emerge

How do we make sense of complex environments?

Gaussian probability ("Bell curve) is not sufficient

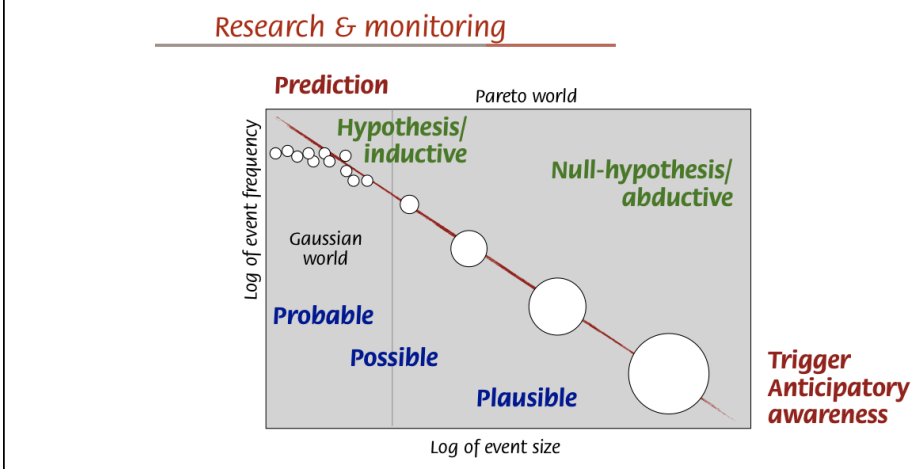


http://en.wikipedia.org/wiki/Normal_distribution

We cannot see the **low** probability, **high** impact events…the outliers

Pareto plausibility seeks outliers

Derived from material created by Max Boisot
Academy of Management Montreal 2010



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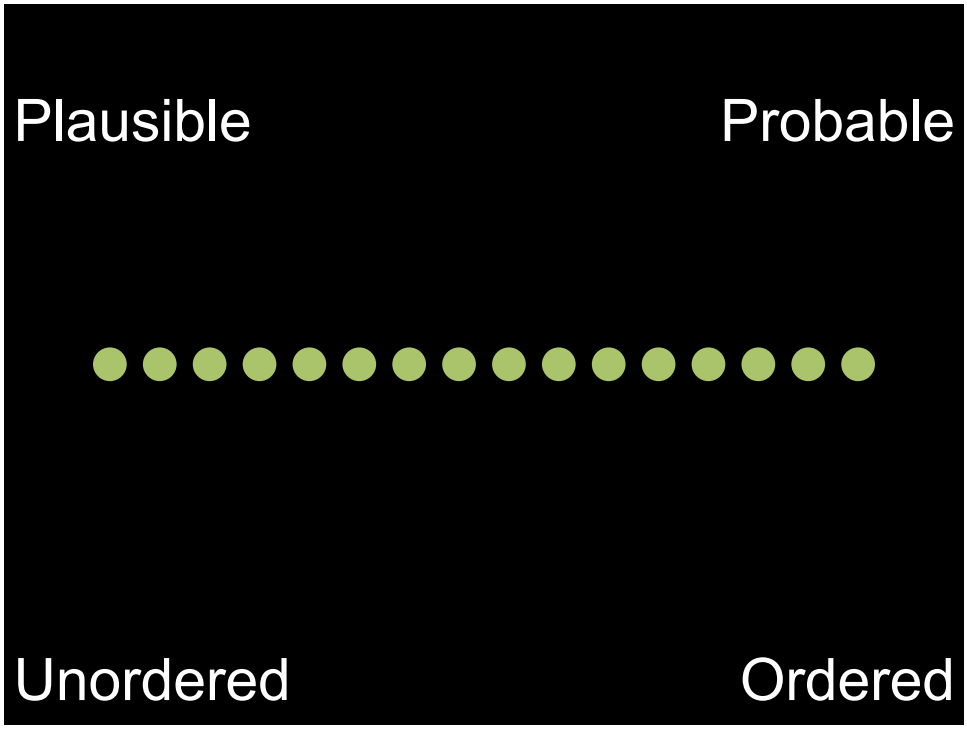
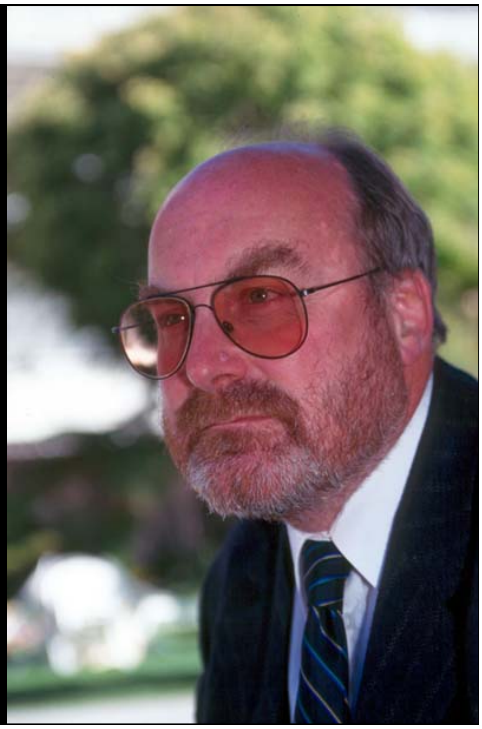
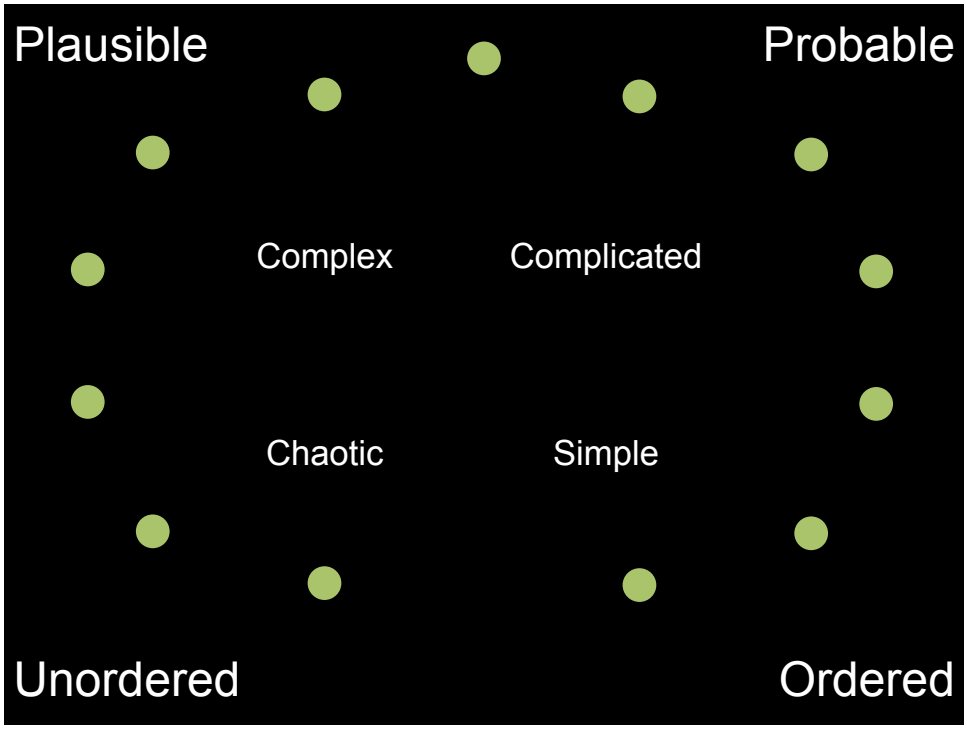


The world according to Dave–Cynefin

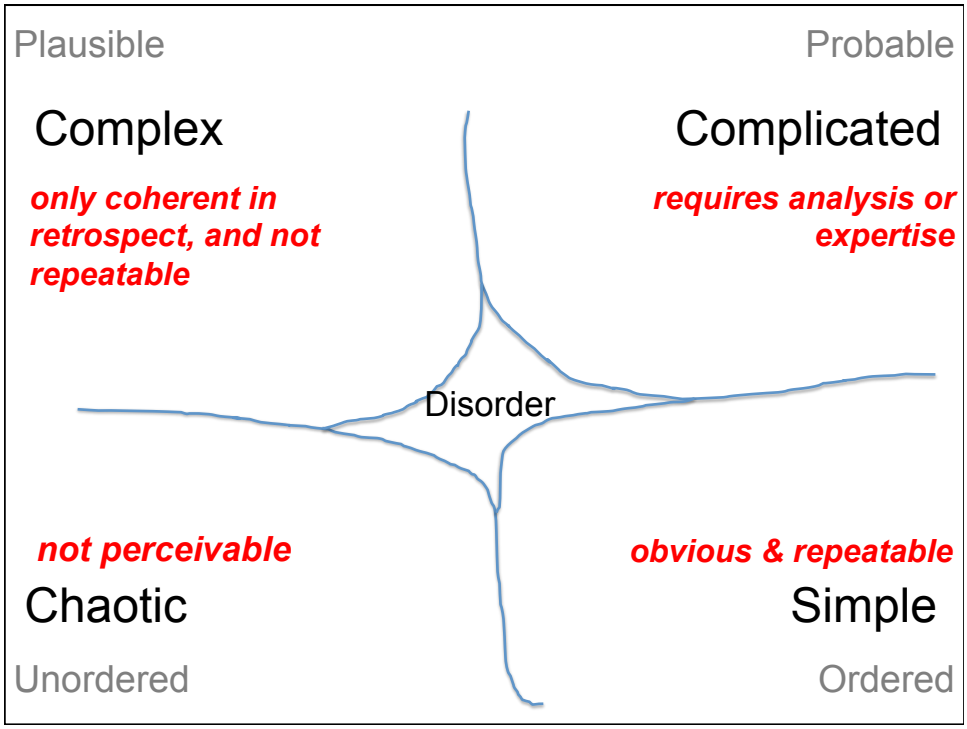
David Snowden

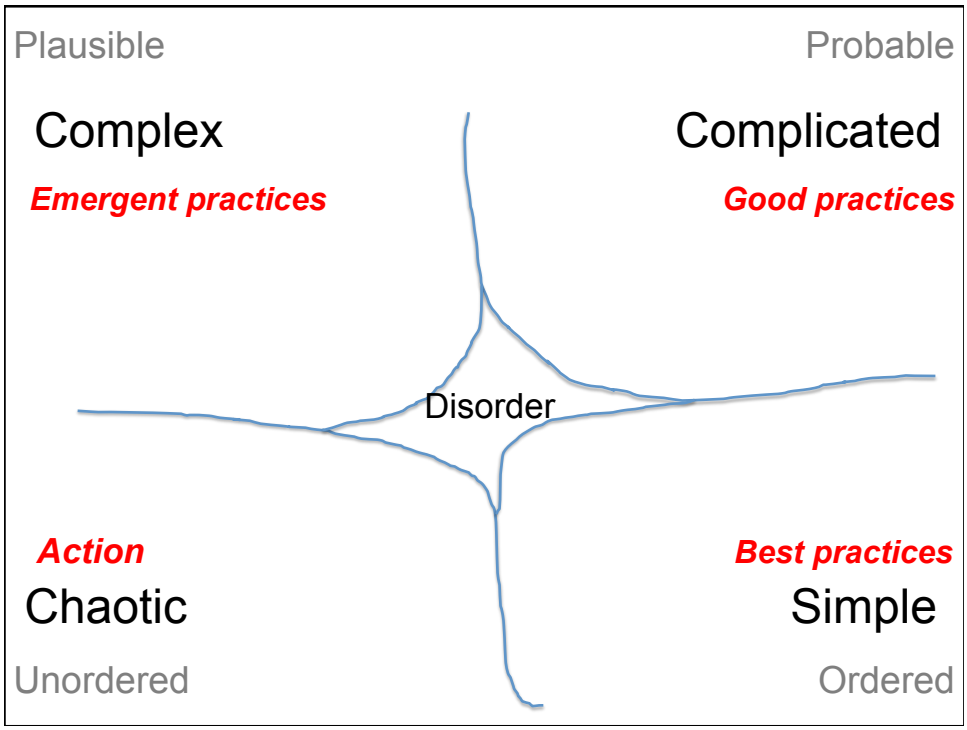


How to organise a
Children's Party



The relationship between cause and effect reveals a system's complexity and appropriate actions


Plausible
Probable
Complex
Complicated
only coherent in retrospect, and not repeatable
requires analysis or expertise
Disorder
not perceivable
obvious & repeatable
Chaotic
Simple
Unordered
Ordered

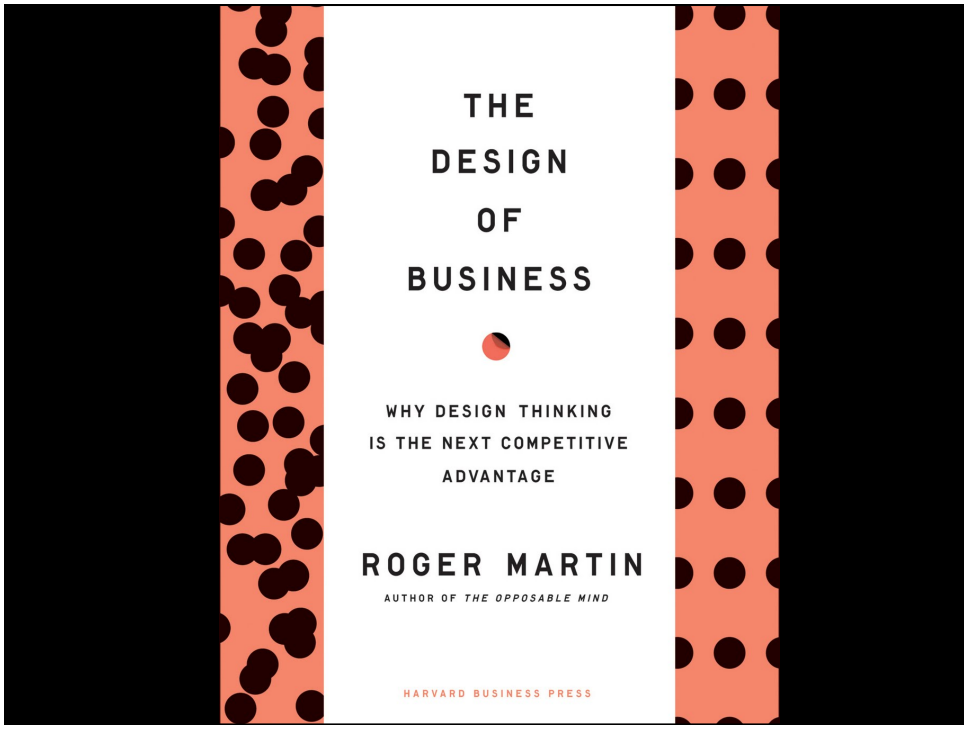

Plausible
Probable
Complex
Complicated
Emergent practices
Good practices
Disorder
Action
Best practices
Chaotic
Simple
Unordered
Ordered

What is Dave asking of us?

Resilience vs Robustness

Effectiveness vs Efficiency

Design thinking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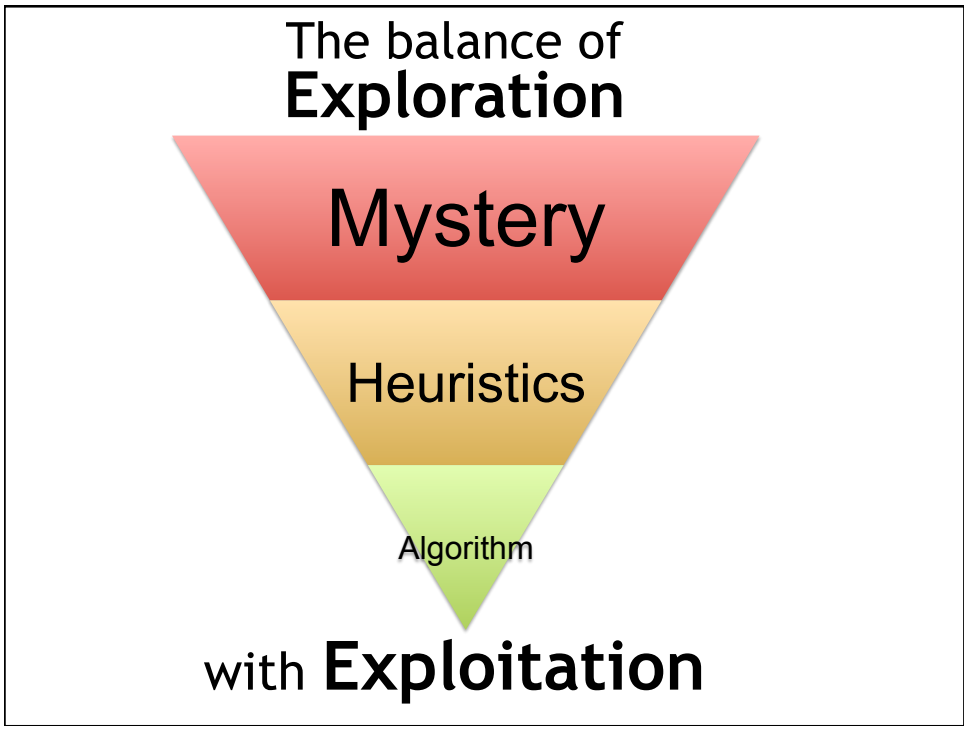
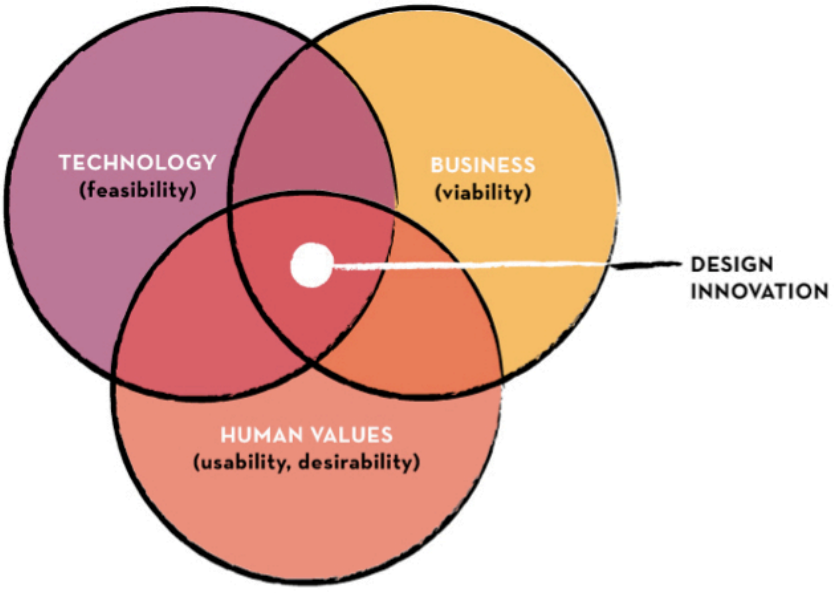

The balance of
Exploration
Mystery
Heuristics
Algorithm
with Exploitation

In business, we must balance searching and shipping

George Kembel

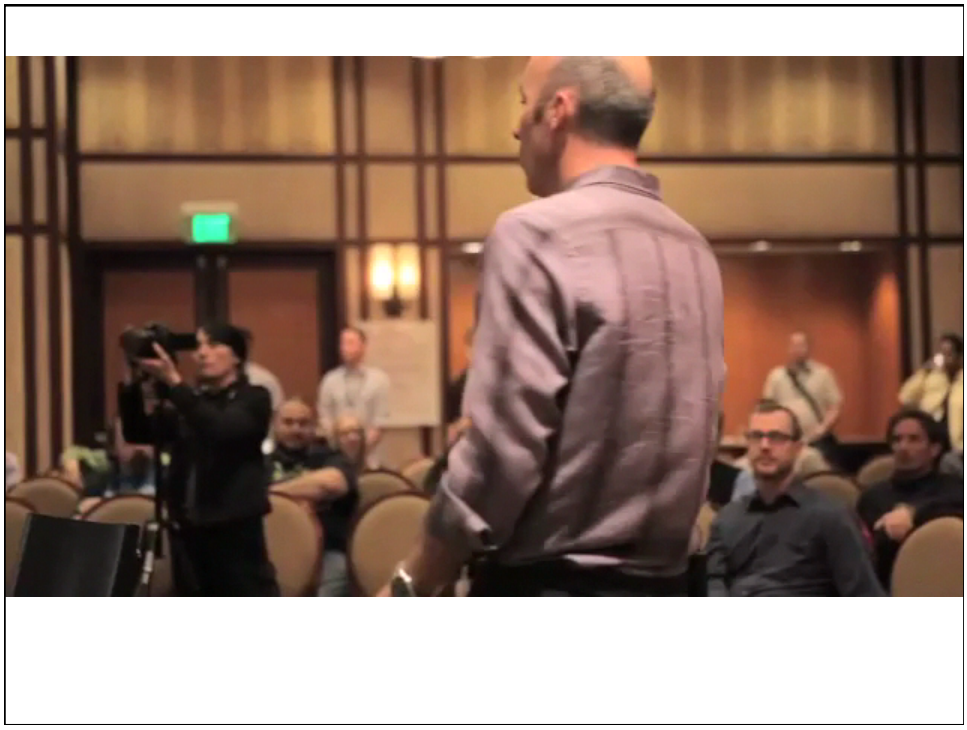
d.school, Stanford University

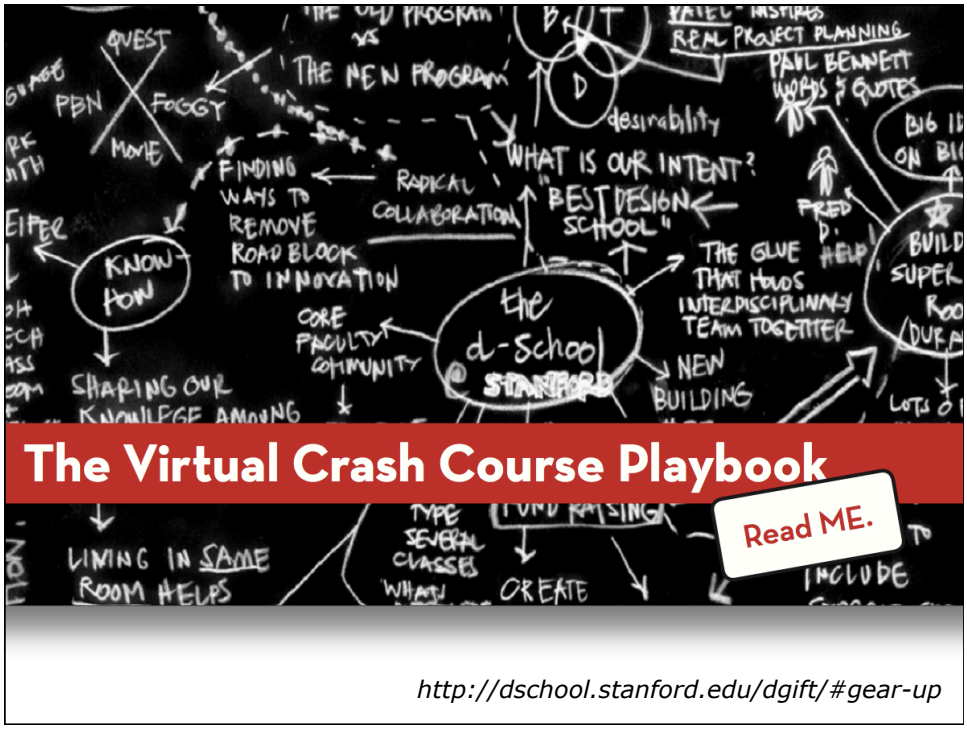
Bring empathy and wonder into your mystery and hunchews

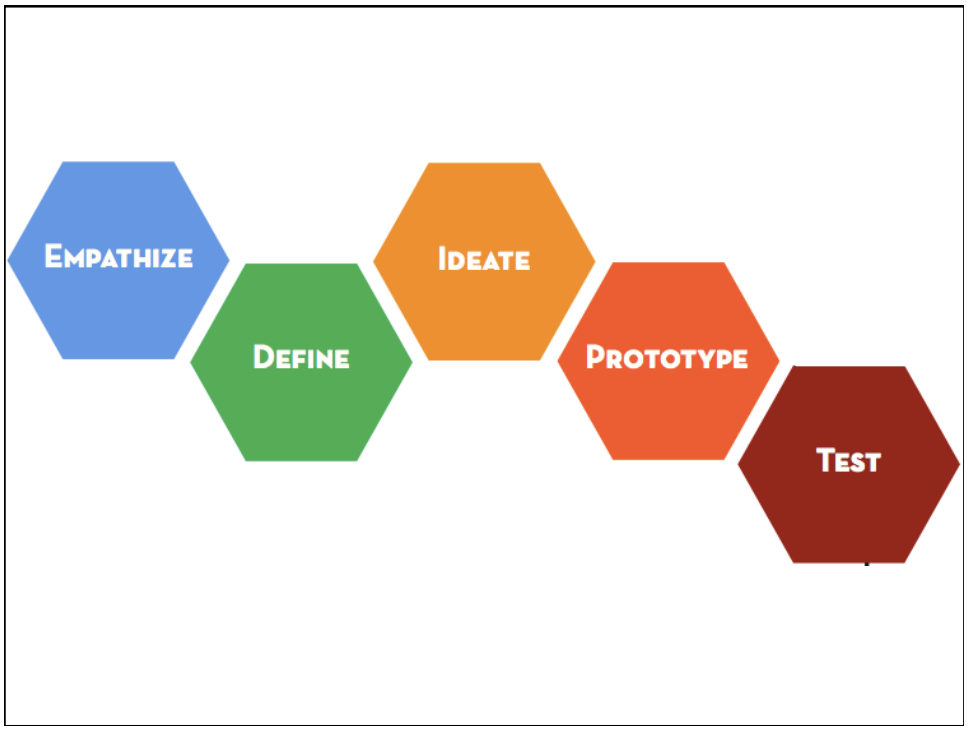


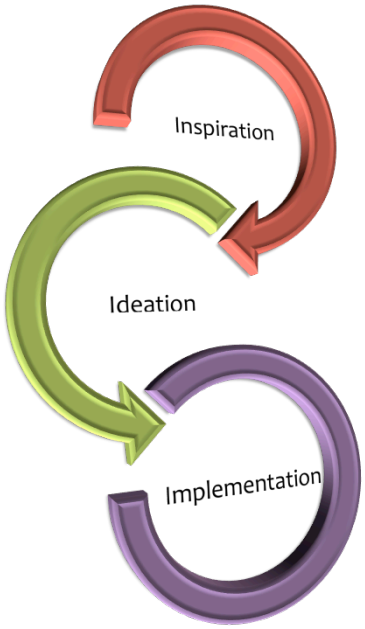
http://dschool.stanford.edu/our-point-of-view/

George Kembel on designing an MRI machine

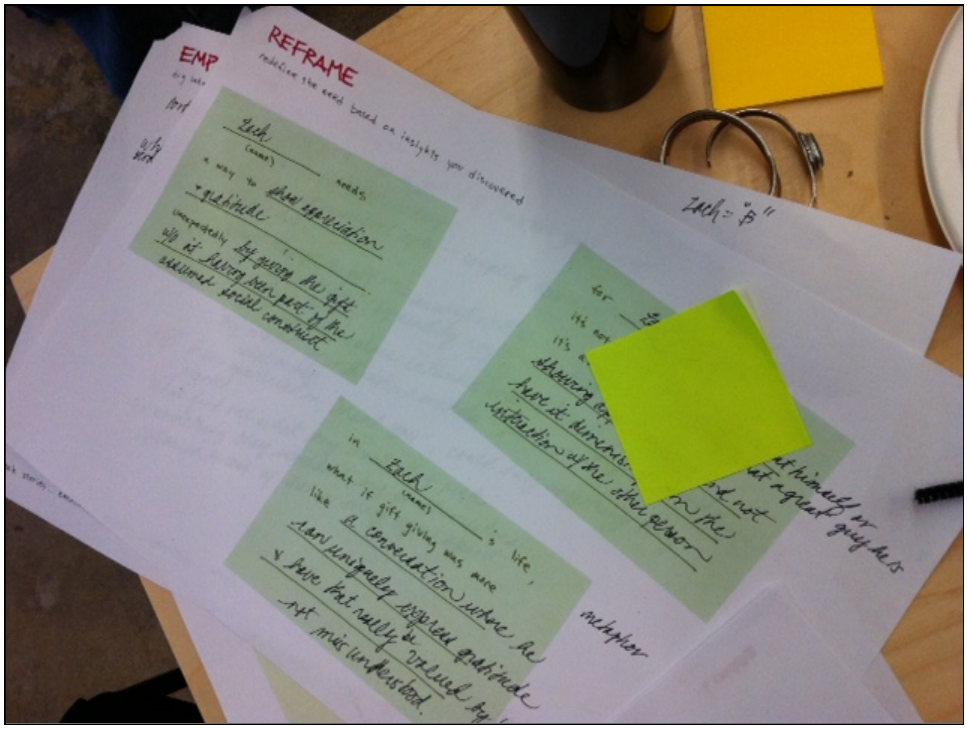


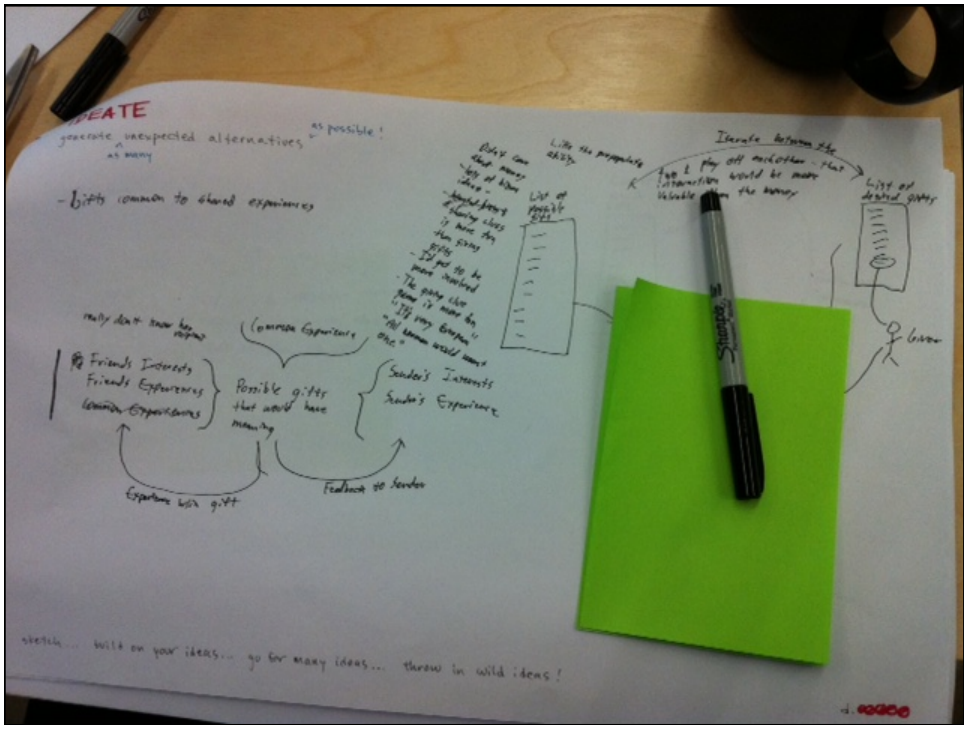

The Virtual Crash Course Playbook
Read ME.
http://dschool.stanford.edu/dgift/#gear-up


EMPATHIZE
DEFINE
IDEATE
PROTOTYPE
TEST



Low fidelity prototypes


REFRAME
EMP
Zach = "B"
metaphor


generate unexpected alternatives as possible!
- gifts common to shared experiences
Friends Interests
Friends Experiences
Common Experiences
Possible gifts that would have meaning
Sender's Interests
Sender's Experience
Experience with gift
Feedback to Sender
Giver
sketch... wild on your ideas... go for many ideas... throw in wild ideas!

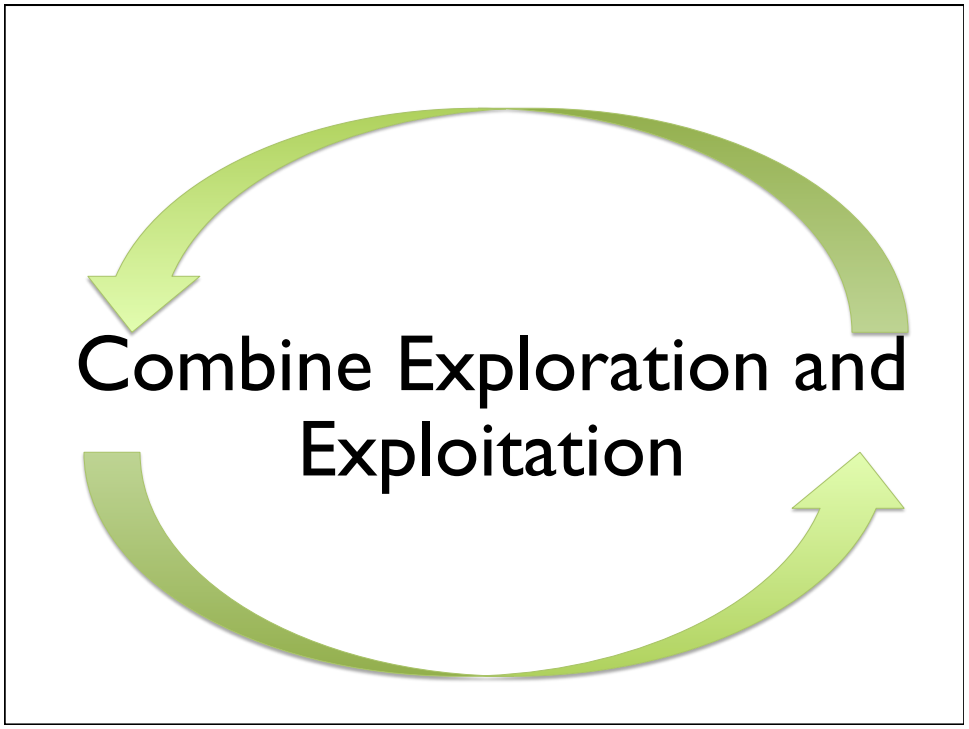
http://www.flickr.com/photos/virtualeyesee/6107062655

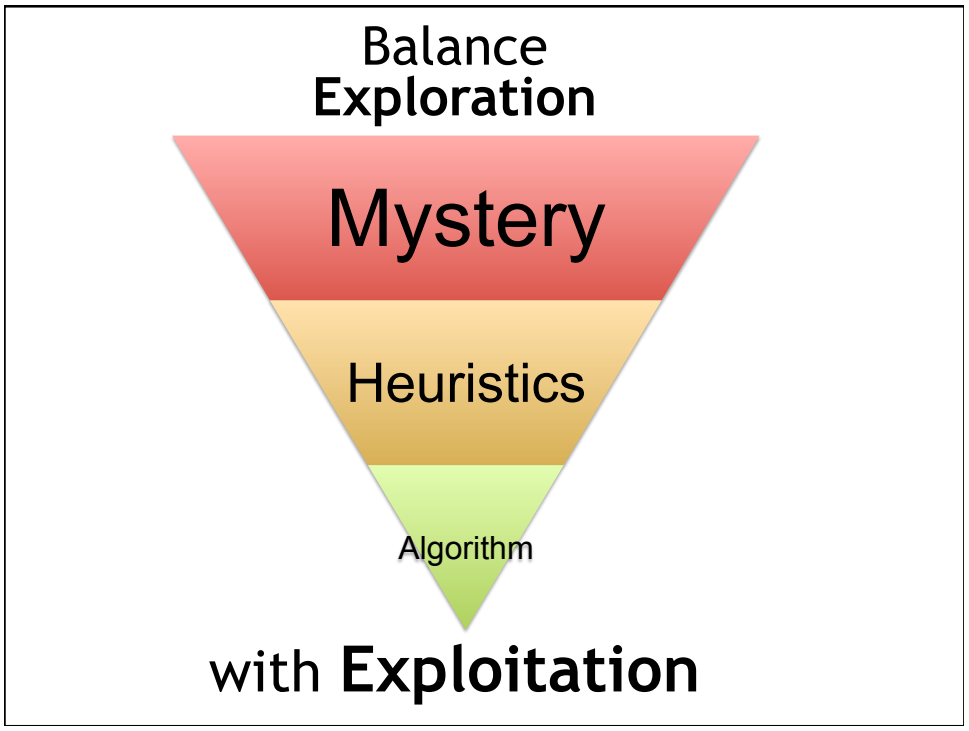
What does this mean to you?

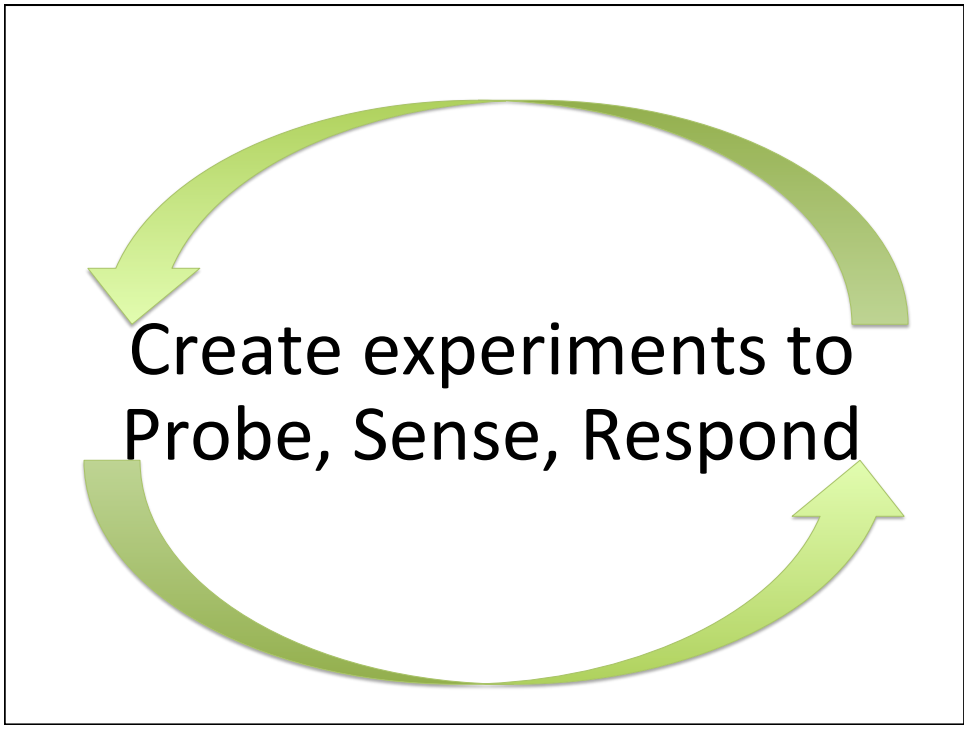
We cannot scale our great work without these disciplines

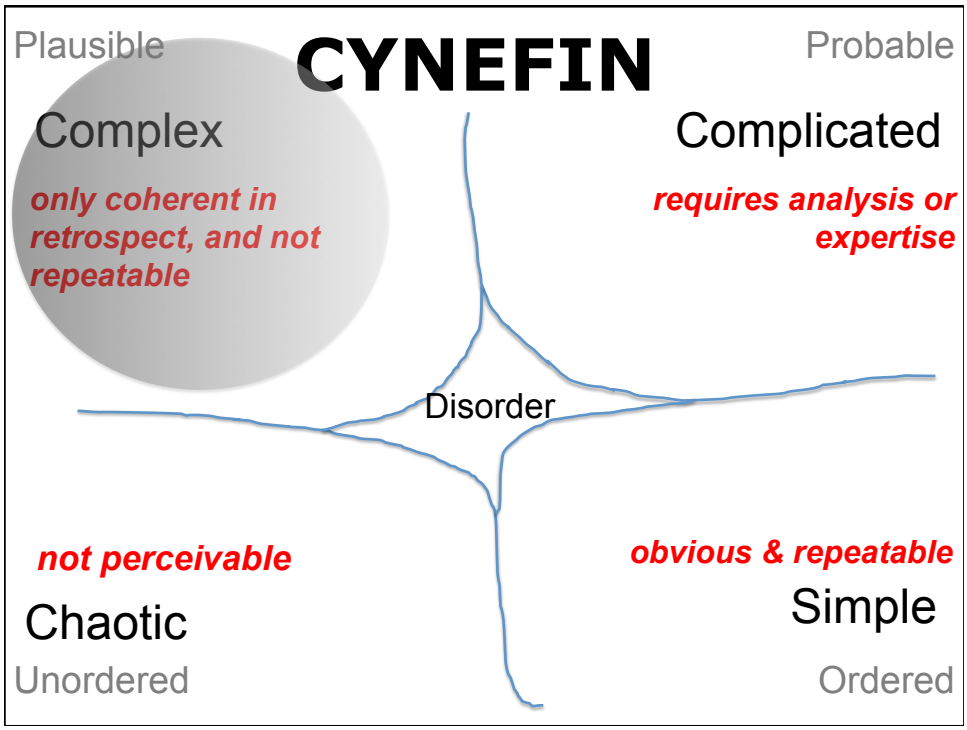
"Cookbook Agile"

Explore
Empathize
Innovate


Combine Exploration and Exploitation


Balance
Exploration
Mystery
Heuristics
Algorithm
with Exploitation


Create experiments to
Probe, Sense, Respond


CYNEFIN
Plausible
Probable
Complex
only coherent in retrospect, and not repeatable
Complicated
requires analysis or expertise
Disorder
not perceivable
Chaotic
Unordered
obvious & repeatable
Simple
Ordered

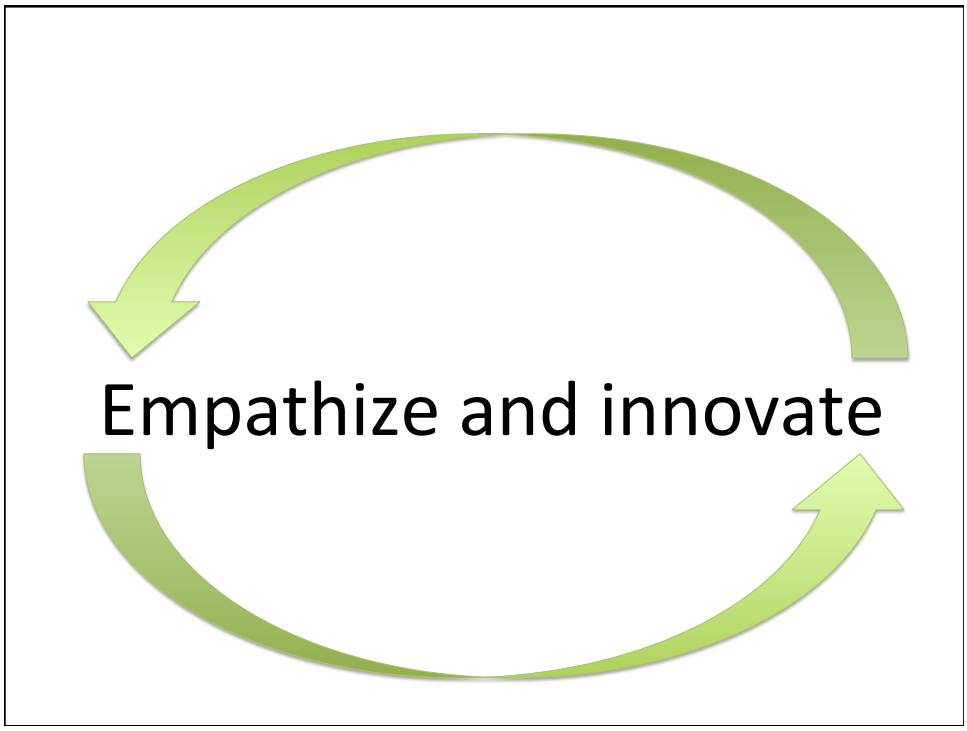
#1
"Future Backwards"

The Future, Backwards

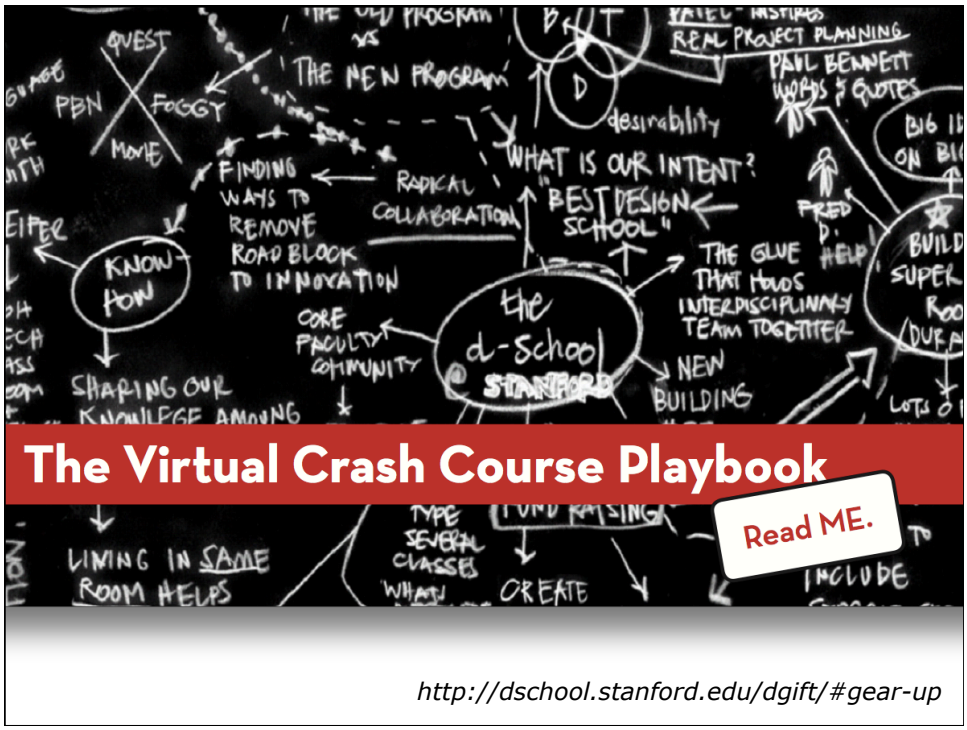
- Current State (CS)
- Turning points backwards from CS
- Heaven
- Hell
- Turning points backwards from heaven
- Turning points backwards from hell
- Accidents on hell or heaven pathway

More restricted case

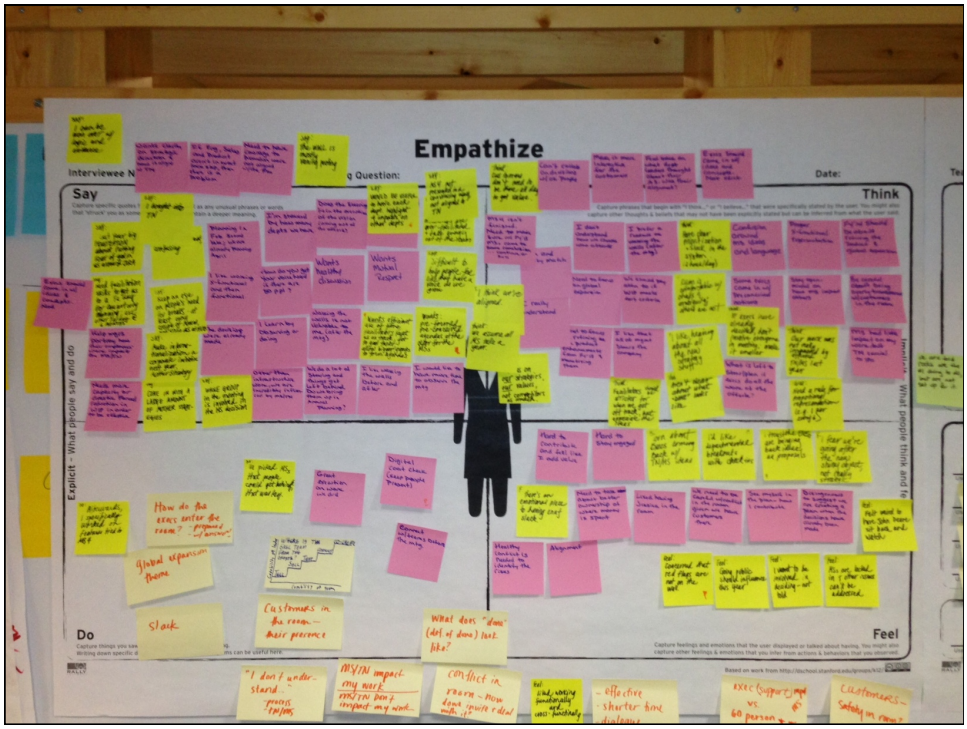
- Current state
- Turning points backwards from CS, heaven and hell
- Heaven & Hell (marked)
- Accidents

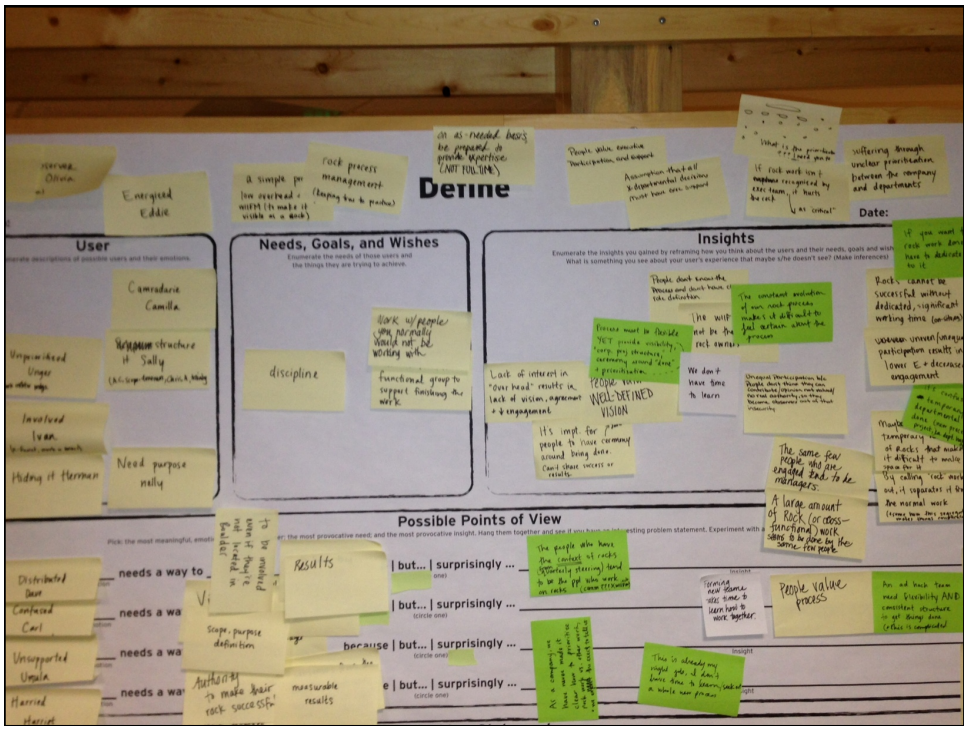

Empathize and innovate

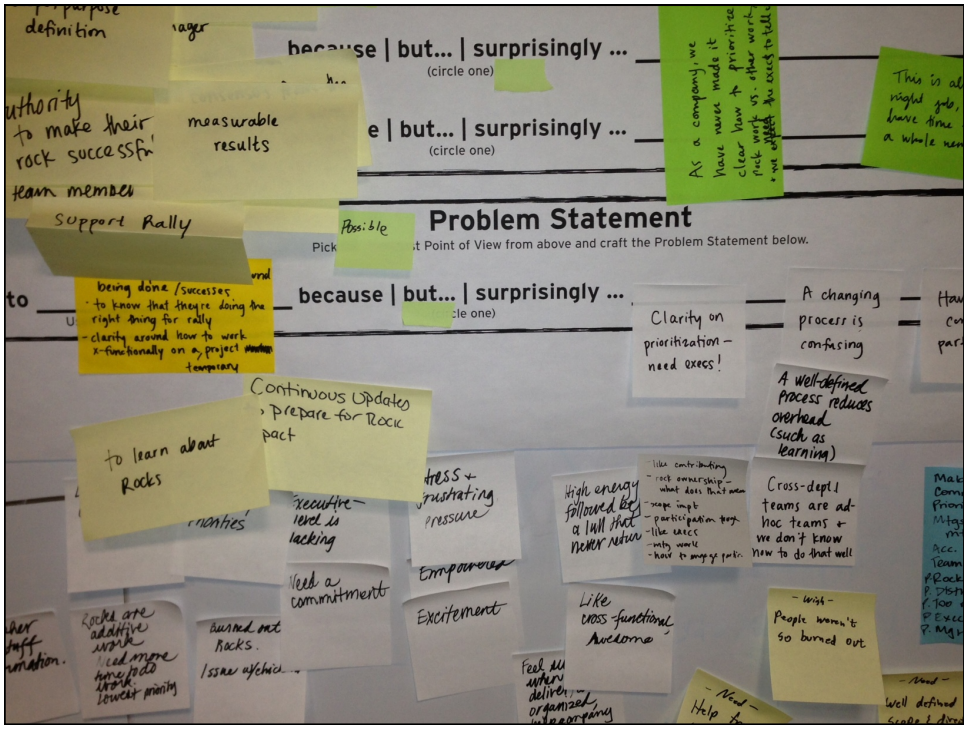
#2
"Gift Giving Experience"



#3
"Empathy Interviews"


Empathize
Say
Think
Do
Feel
Explicit - What people say and do
Implicit - What people think and fe
How do the execs enter the room?
Global expansion theme
Slack
Customers in the room - their presence
What does "done" (def of done) look like?
"I don't understand... process, tools"
My/PM impact my work
PM/PO don't respect my work
Conflict in room - how does it deal with it?
Effective - shorter time dialogue
Exec support vs. 60 person
Customers - Satisfy in room


Define
User
Needs, Goals, and Wishes
Insights
Possible Points of View
Energized Eddie
Camaraderie Camilla
Involved Ivan
Need purpose nelly
discipline
Work w/ people you normally should not be working with.
Functional group to support finishing the work.
Lack of interest in "over head" results in lack of vision, agreement + engagement
PEOPLE WITH WELL-DEFINED VISION
It's impt for your people to have ceremony around "being done." Can't show success or results.
We don't have time to learn
The same few people who are crushed 2nd. to be managers.
A large amount of Rock (or cross-functional) work ends up done by the same few ppl
People value process
Rock process management
Date:
needs a way to
| but... | surprisingly ...
because | but... | surprisingly ...
Results
Scope, purpose definition
measurable results



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– Charles Sanders Peirce

“Seek the wildly unexpected”

Mad World

change
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SOFTWARE
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