

PROJECT GUIDANCE

HOW TO START AND COMPLETE A SUCCESSFUL DATA-AI-SYSTEM PROJECT

INCLUDES EXECUTIVE TOPICS

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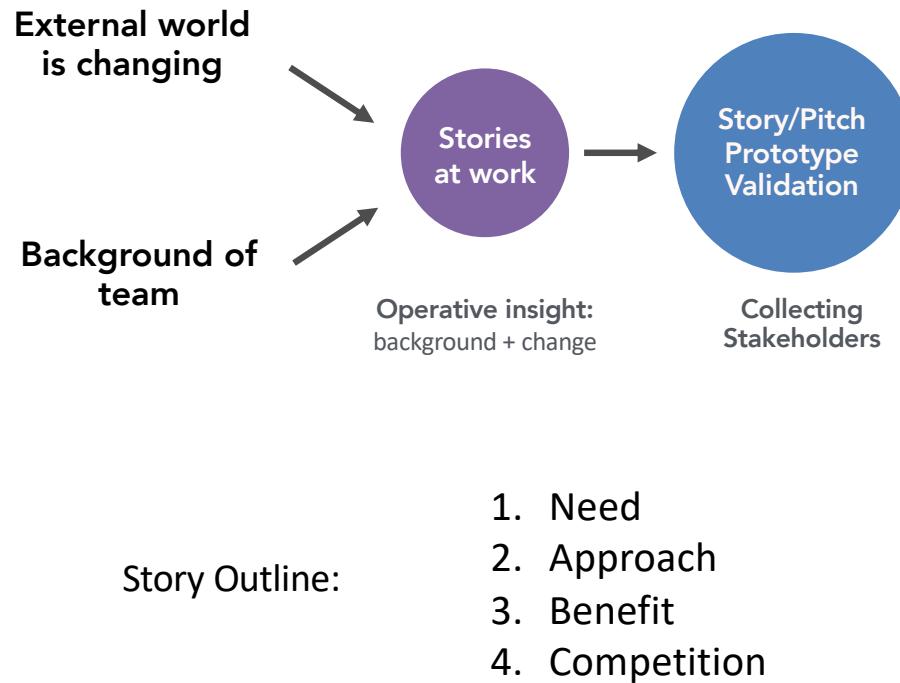
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Project Issues:

1. Not sure how to start (often an Executive topic)
2. How to communicate to management
3. Skill gaps
4. Policy/Legal
5. Know what to do, must execute

Getting Started: Every Project builds on a story derived from watching the environment



Story is important for 2 reasons:

1. Alignment and feedback
2. Scale and stakeholders

**Mindshare → Traction
Story → Awareness → Brand**

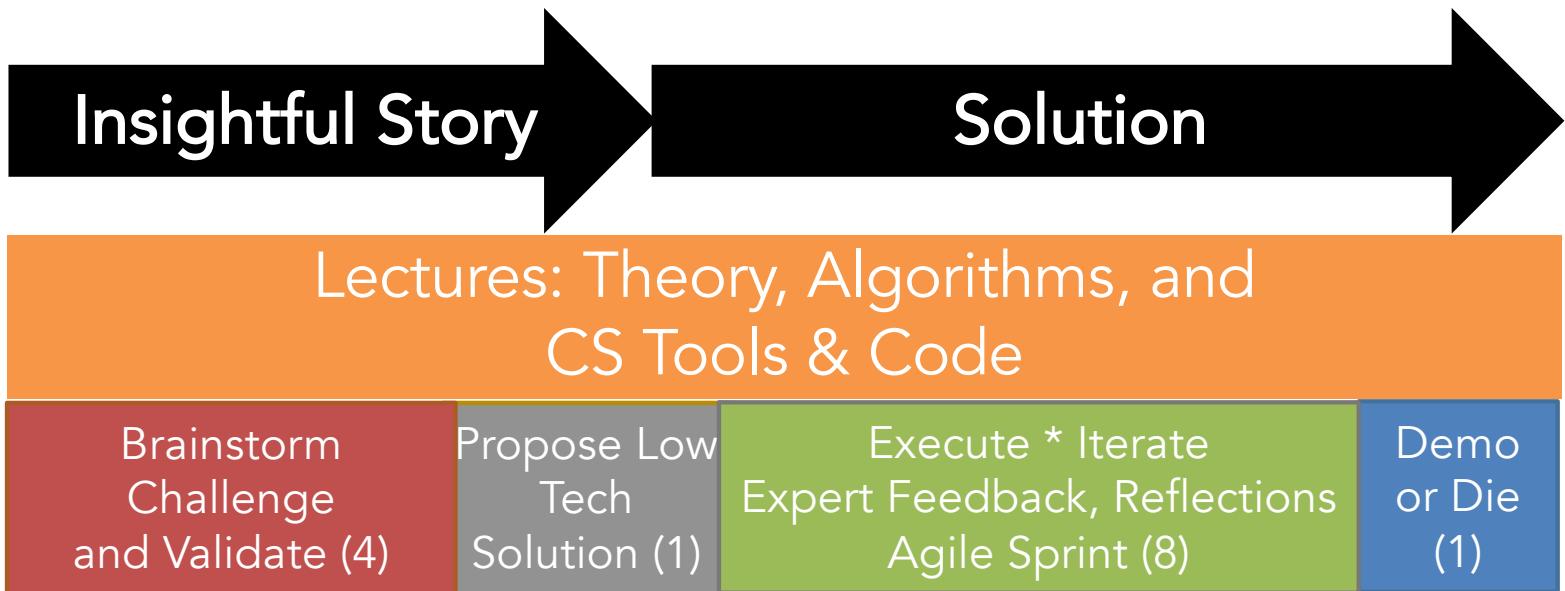
A company story keeps adapting and building

**This is called a high concept pitch.
It works for company also.**



- Trick: no one else is doing it already
- Fits on a business card. Gets a conversation started.

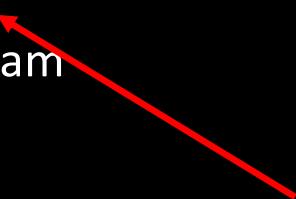
How the Data-X Course Works:



Open-ended, real-world project: Typically 5 students, with available advisor network

How Many Ways Can We Use AI/Data

- New Data-Driven Business Model: Amazoogle
 - Construct a valuable data stream
 - Predict something valuable
- Automation (Not Amazoogle)
 - Operations, Manufacturing, or
 - Customer Engagement
- Analyzing the past, learning from data - Not Amazoogle
- Digital Transformation – This is broader than AI/ML



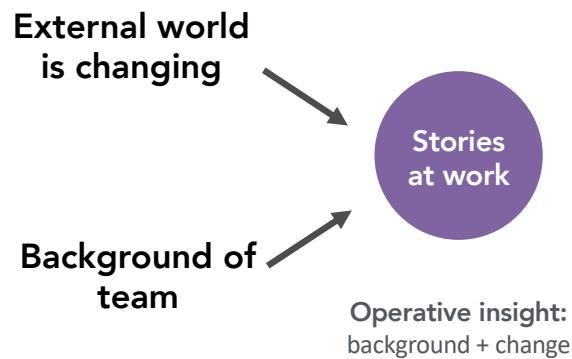
For Government
Think Mission,
not Business Model



Data
Science

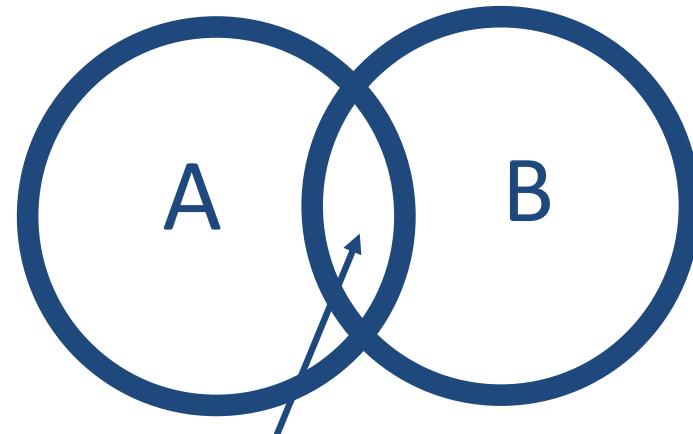


Assignment 1: Write Your Project Story



NABC Model

1. Need
2. Approach
3. Benefit
4. Competition



Story Assignment:

1. Story/Narrative
 1. Paragraph format with 1-2 min pitch
 2. Slide presentation (problem/solution)
2. What has already been done/tried so far?
3. What would be the next?

1. Digital Transformation
2. New Data-Driven Business Model
3. AI/LM (direct or inferred) Automation
 - a) Operational
 - b) Customer/EQ
4. Other

Project Low Tech Demo Example

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Data X

Name of Project

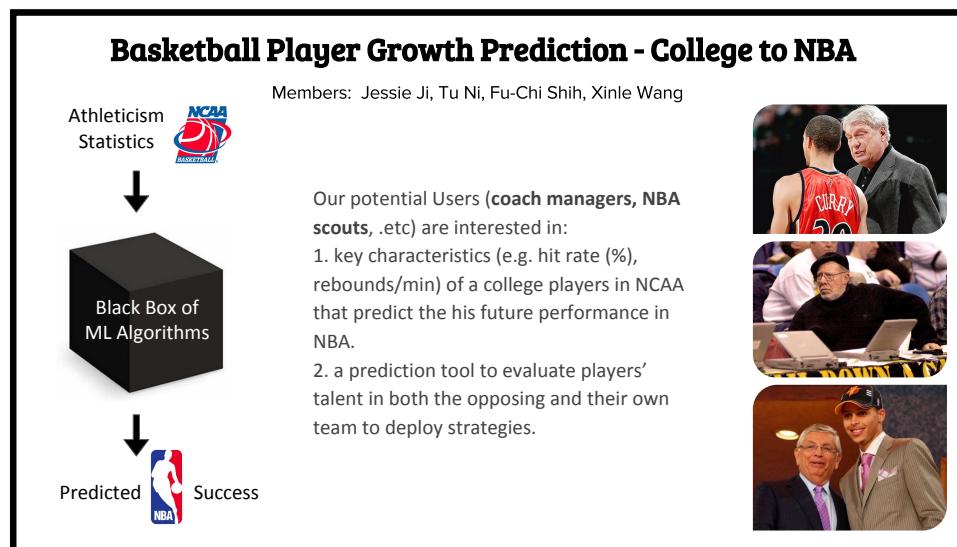
Project Overview

Name of team members

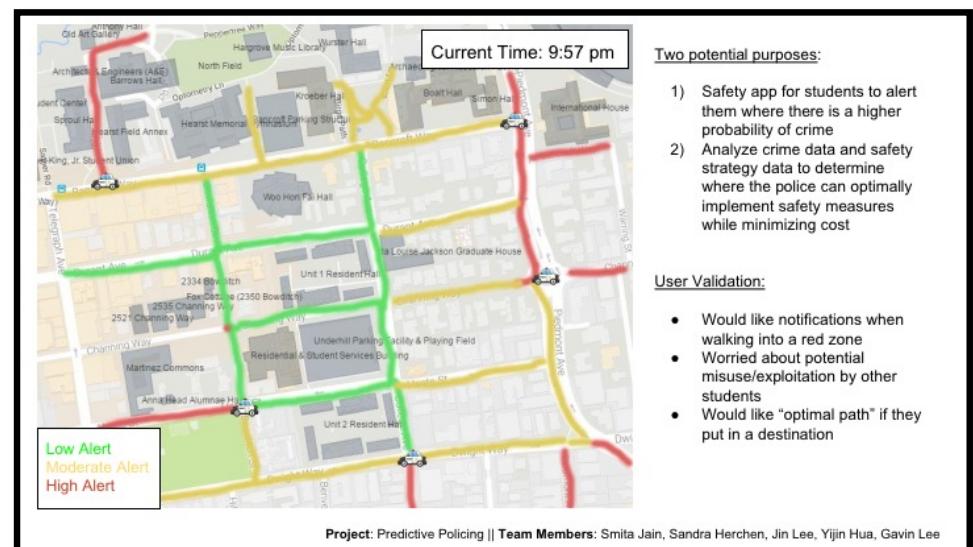
Slide 1: What is Your Project

- High Level Description
- Any validation information (did you talk with anyone who wants it)
- This slide is about “why” and “what”

Example: Sport Prediction



Example: Predictive Policing

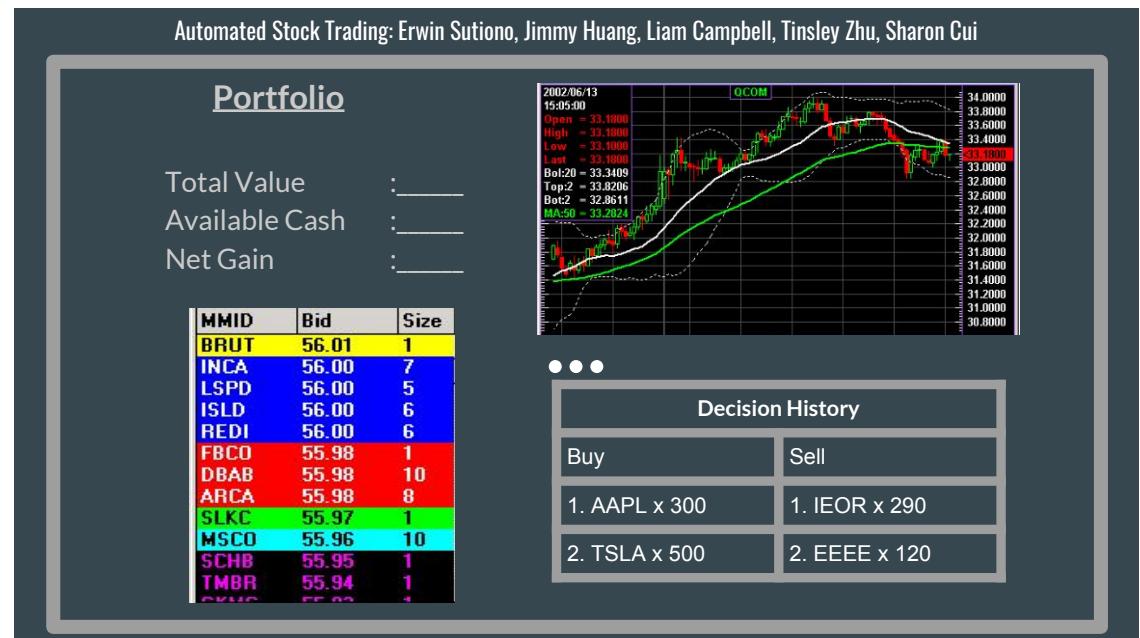


Slide 2: User Perspective. Illustrate UI or Input /Output

Example Intended Screenshot

List Top 3 User Requirements
(your best guess)

- Performance..
- Presentation..
- ...



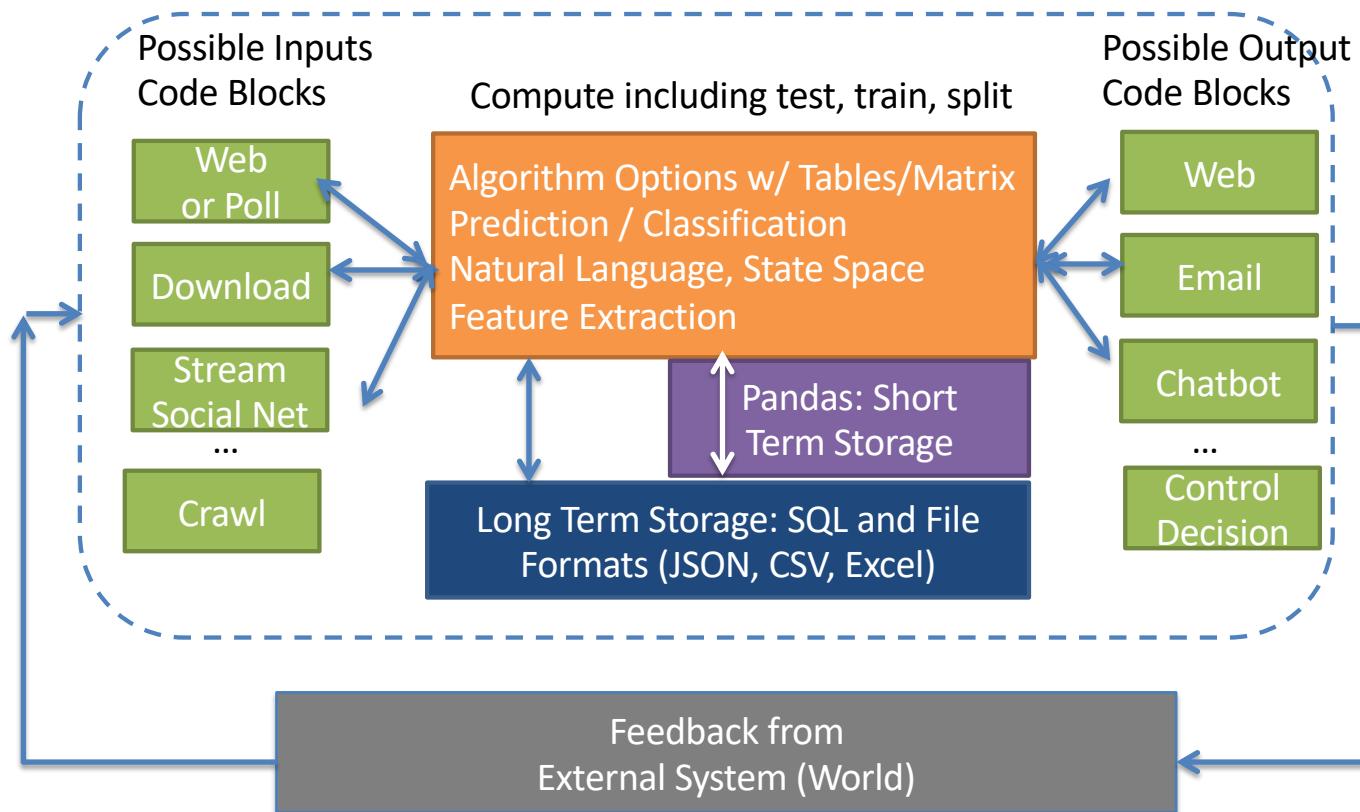
Technical Components of Project

Top Components in order of Importance

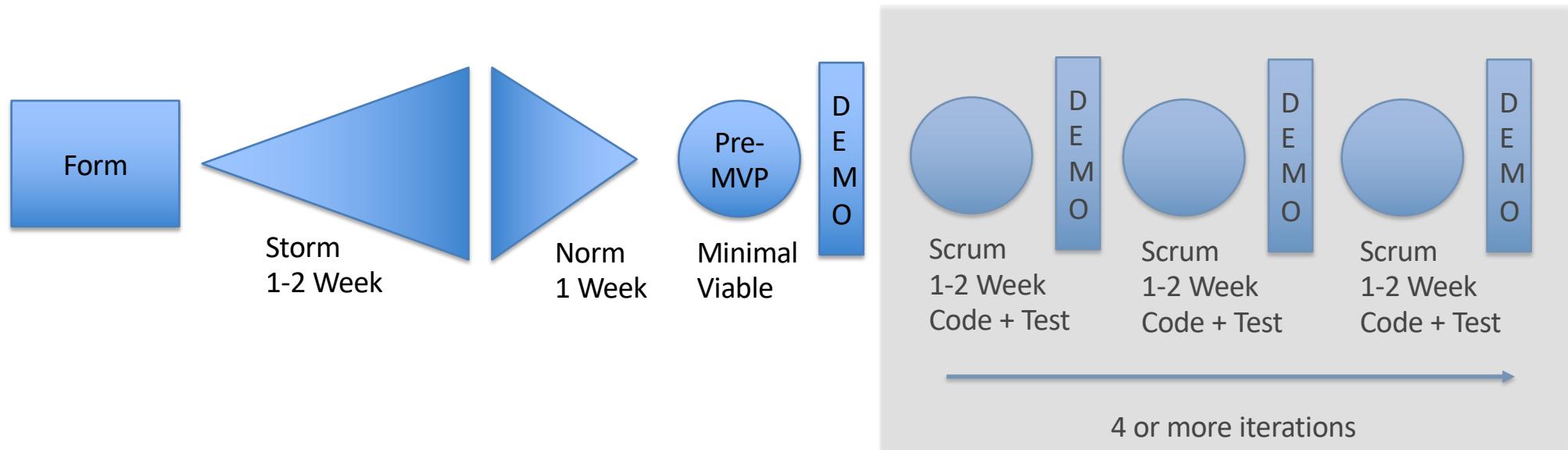
- UI
 - Ability to send emails
 - Use of Neural Network Algorithms
 - Where will we get the data
 - ..
-
- Color Code Orange or Red: Lines you need to learn to do
 - Color Code Green: Lines which will be easy to develop

Put Sample Architecture (SA) and /or Data Model (DM)

Replace the diagram below with your SA / DM
(it is okay to use two slides, one for SA and one for DM)



What will you do next



- What is the initial set of tasks (3-5) tasks
- Put initials or a name next to each
- Hint: start with the red items on your list of technical components
- Brainstorm/Research -> Normalize Concepts -> Simplest Minimal Demonstrable Version

Consider Swim Lanes

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CASE Example: A Major GLOBAL Mall Developer and operator



CASE Example: A Major GLOBAL Mall Developer and operator

CHALLENGE: AMAZON
WILL DISRUPT SHOPPING

REQUIRES:

- BUSINESS ADAPTATION
- TECHNOLOGY TRANSFORMATION
- CULTURAL TRANSFORMATION

SOMETIMES FIRMS ARE
NOT EVEN AWARE OR
ALIGNED ABOUT THEIR
CHALLENGE



How to Think About Strategy

Identify the Business and Technology Strategy Spectrum



What is the
Business-only
strategy?

Lifestyle Vs
Shopping

Business Options with
technology support

Technology to improve
Experiences
in Malls

New Technology
Options to disrupt self,
Or capture new markets

Dark Kitchen
Last Mile Delivery

Choosing Strategy

1. Opportunity or Threat
2. Business only / Non Tech Solution
3. How can technology/AI support
4. New Business models that work with new technologies

Communicating Strategy

Business Language:

1. Brand reinforcement
2. Wallet Share
3. Efficiency

What Project ⇔ Who is the Right Team



Project Issues:

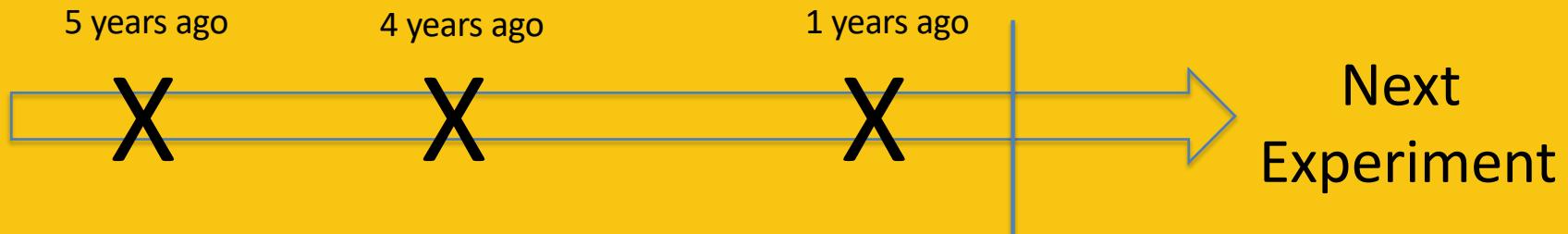
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Sometimes It is Important to Look Backwards and Learn

Attempted Projects to Innovate in This Area



Review in each case:

- What went right? What went wrong?
- Conditions/environment?
- Team, Culture, Decision Making
- Build/buy/Contract
- Timing



Today

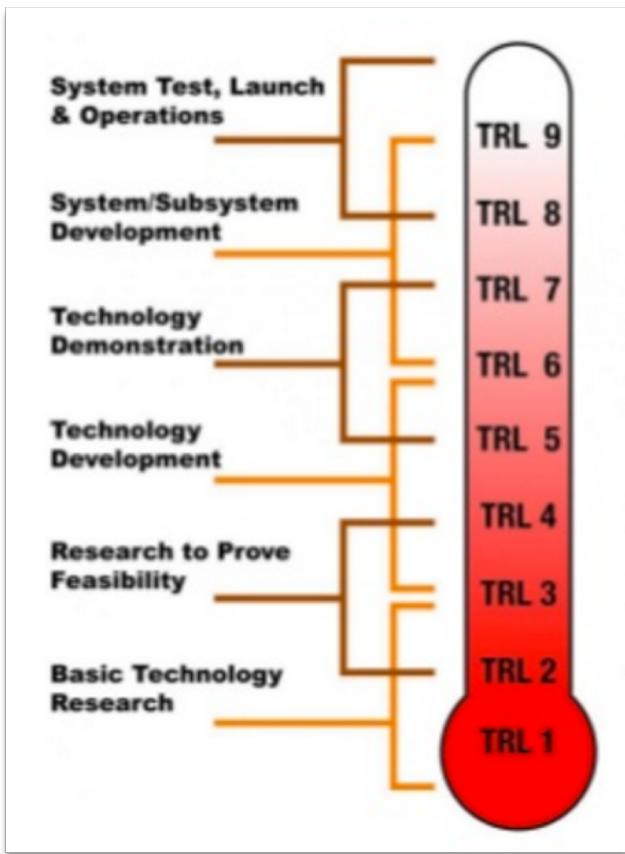
Hypothesis of What can work

Exercise: Try it
List 3-5 past projects
Sub-bullets: reflections

Final statement:
What can we learned

KEY CONCEPTS FOR CREATING ANYTHING THAT IS NEW



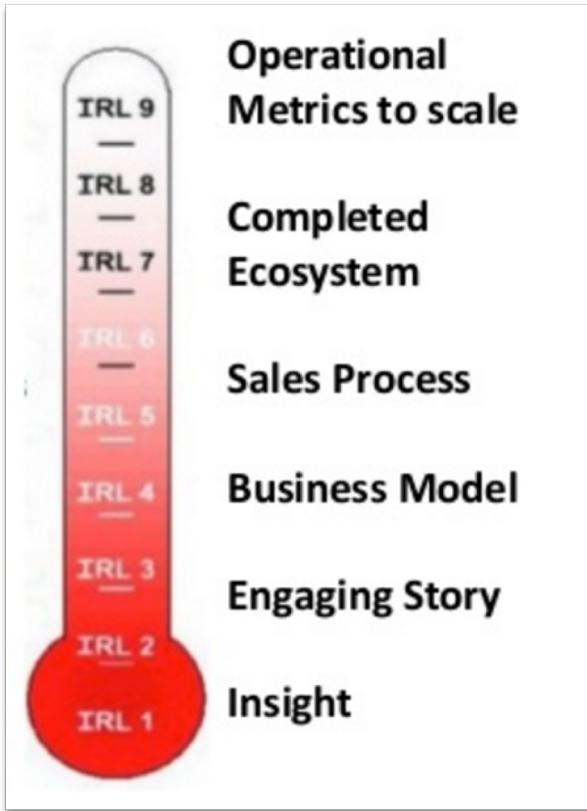


TECHNOLOGY

READINESS

● ● ●
LEVEL

Developed by NASA

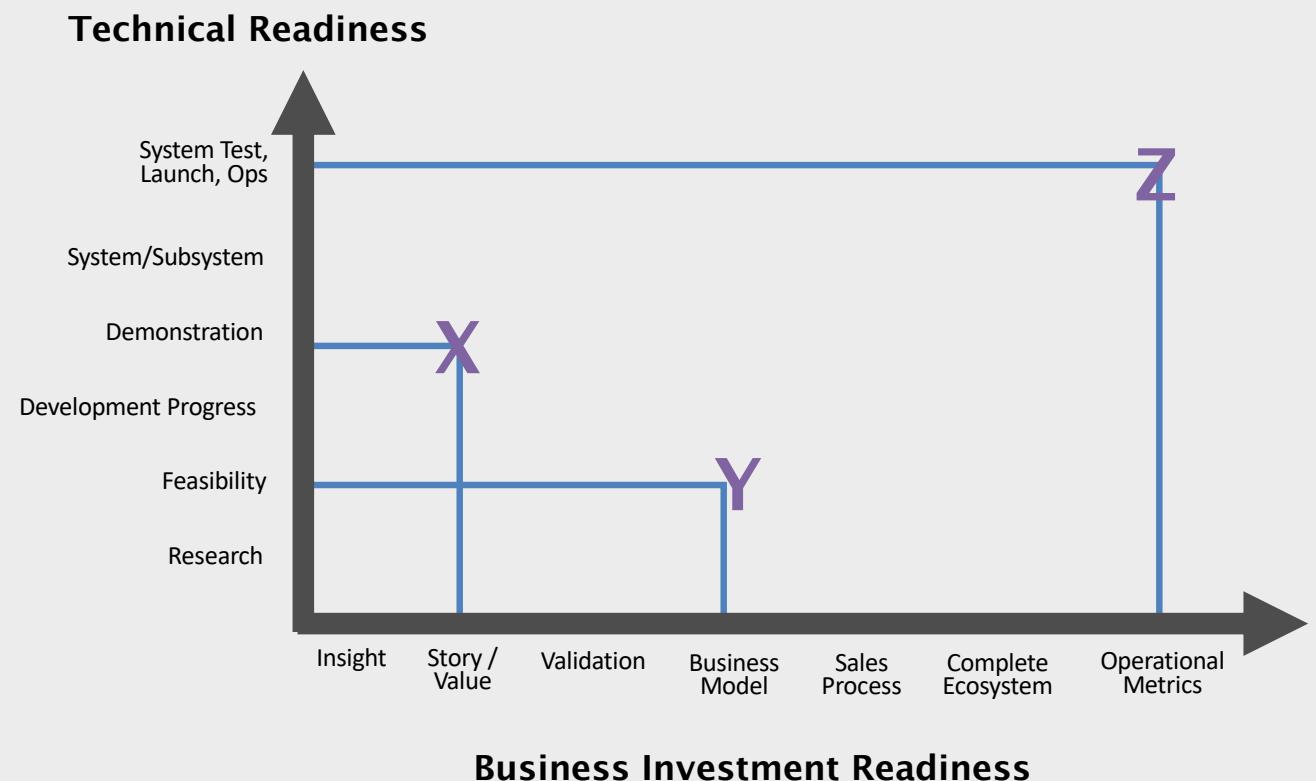


INVESTMENT READINESS LEVEL

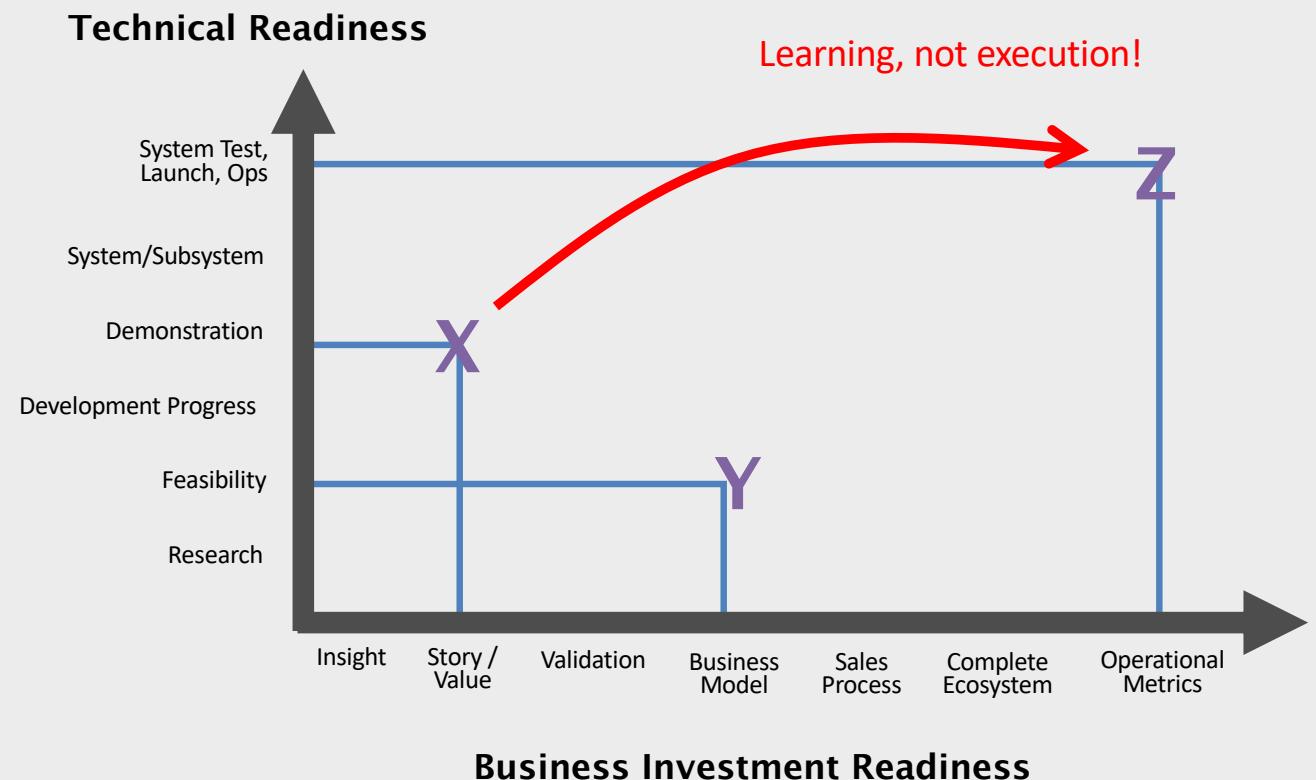
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Version: Berkeley Method
Adapted from Steve Blank

Identify the Stage of Your Product



Identify the Stage of Your Product



Ikhlaq Sidhu, content author

What is the path for transformation or business model change?

Adding, Letting Go, and Change Management

