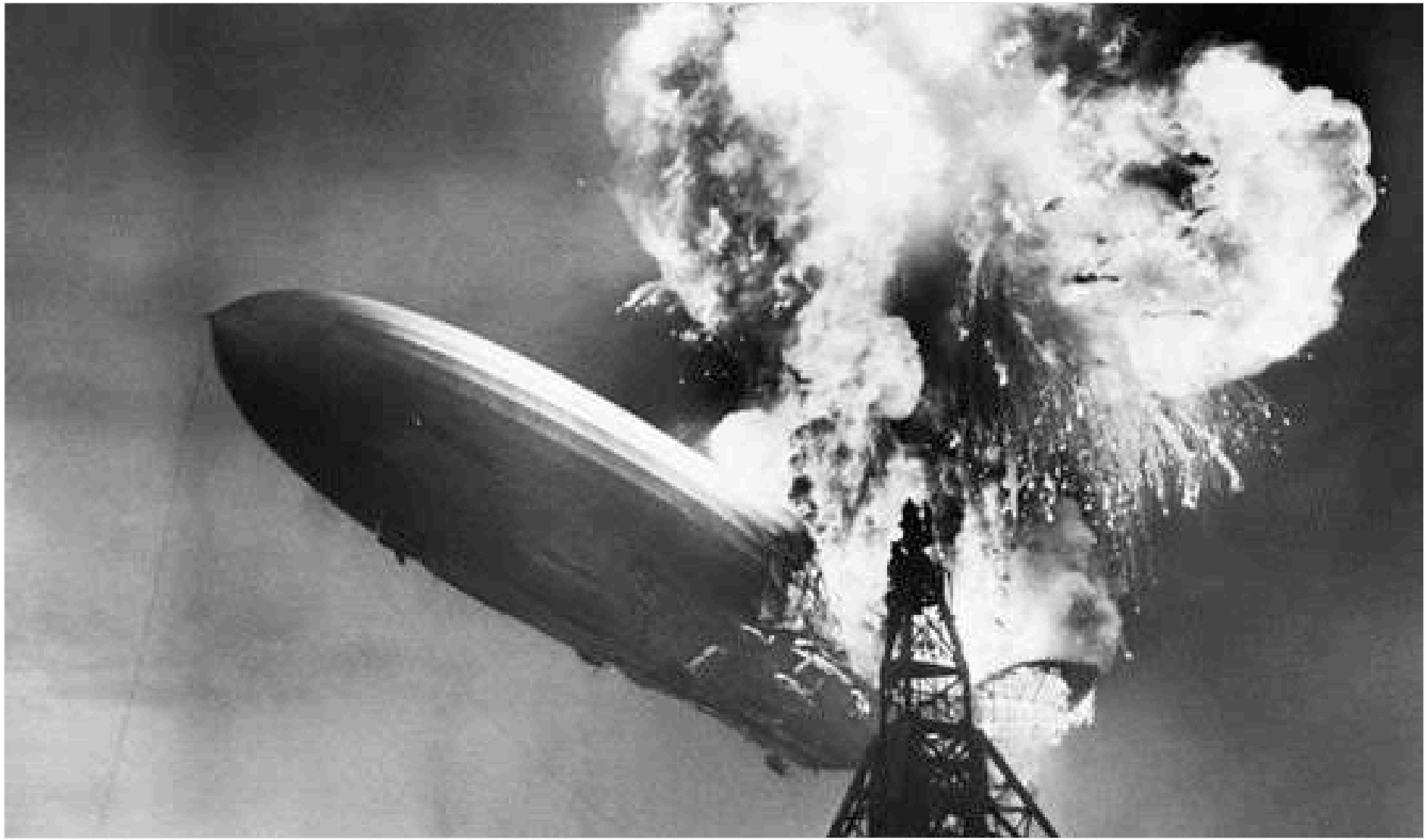

Data
Science
Design
Thinking

The truth about Data Science projects



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The Internet says so

BIG DATA // BIG DATA ANALYTICS

NEWS

2/2/2015
09:40 AM

Big Data Success Remains Elusive: Study

Just over a quarter of organizations say their big data initiatives are a success, according to a recent Capgemini study. So why are three of four unsuccessful?

Jeff Bertolucci
News

Connect Directly

Nearly eight out of ten organizations have big data projects underway, but only 27% describe their efforts as "successful," and a scant 8% as "very successful." But despite this dim view of their data-driven efforts thus far, 60% of executives surveyed recently by consulting firm

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I say so, and I’m as old as dirt

Data Science is a terrible thing to waste

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My conjecture. By me.

A Data Scientist

can increase the probability

that a project is successful

by 5-10X

if they approach it as a

Design Thinking leader

Yours to keep: A Design Thinking process for Data Science projects

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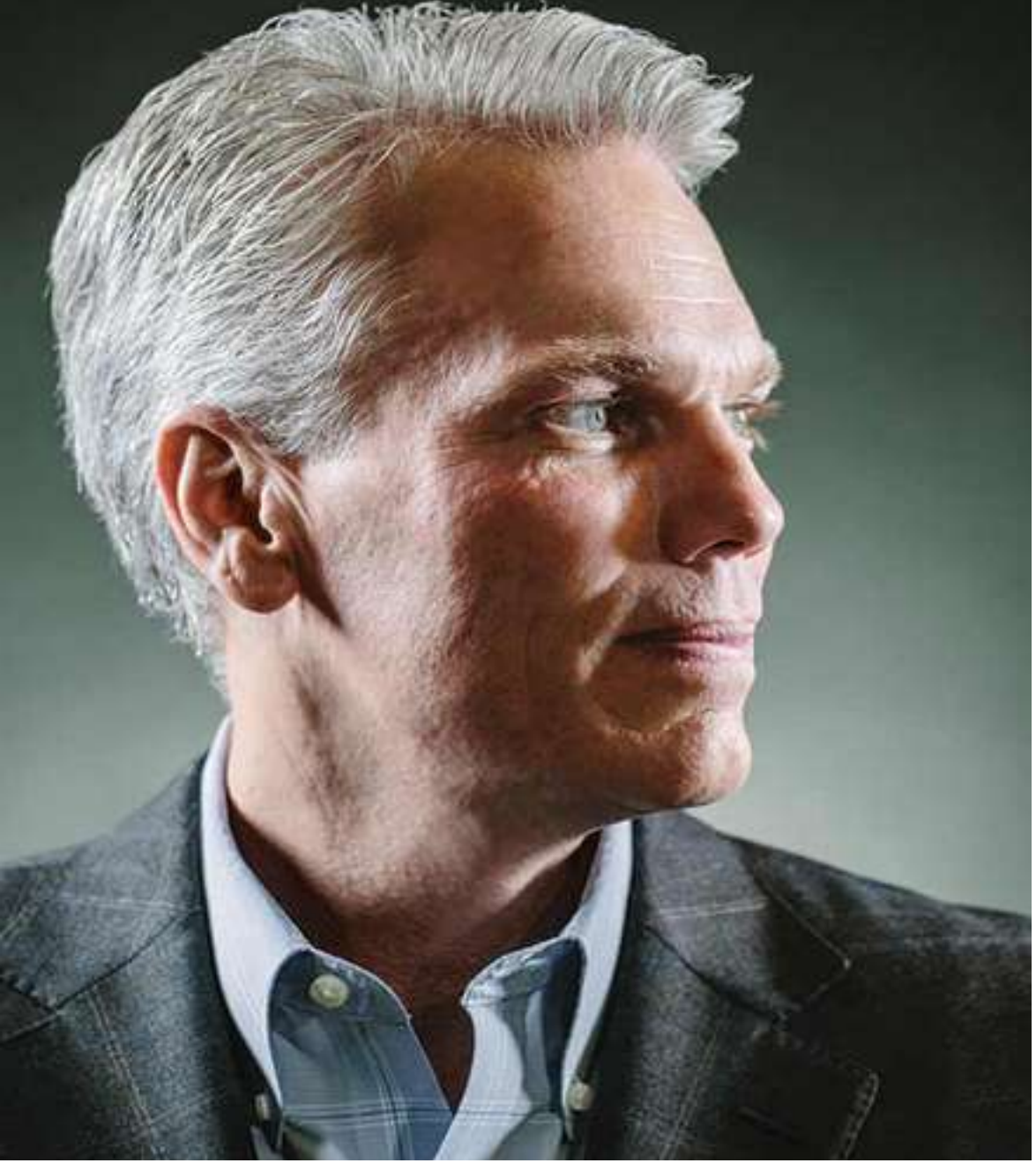

> “ We’ve challenged everyone who works for us — even our lawyers and accountants — to think deeply about how design should be part of their jobs.”

CEO Brad Smith
Harvard Business Review
January 2015

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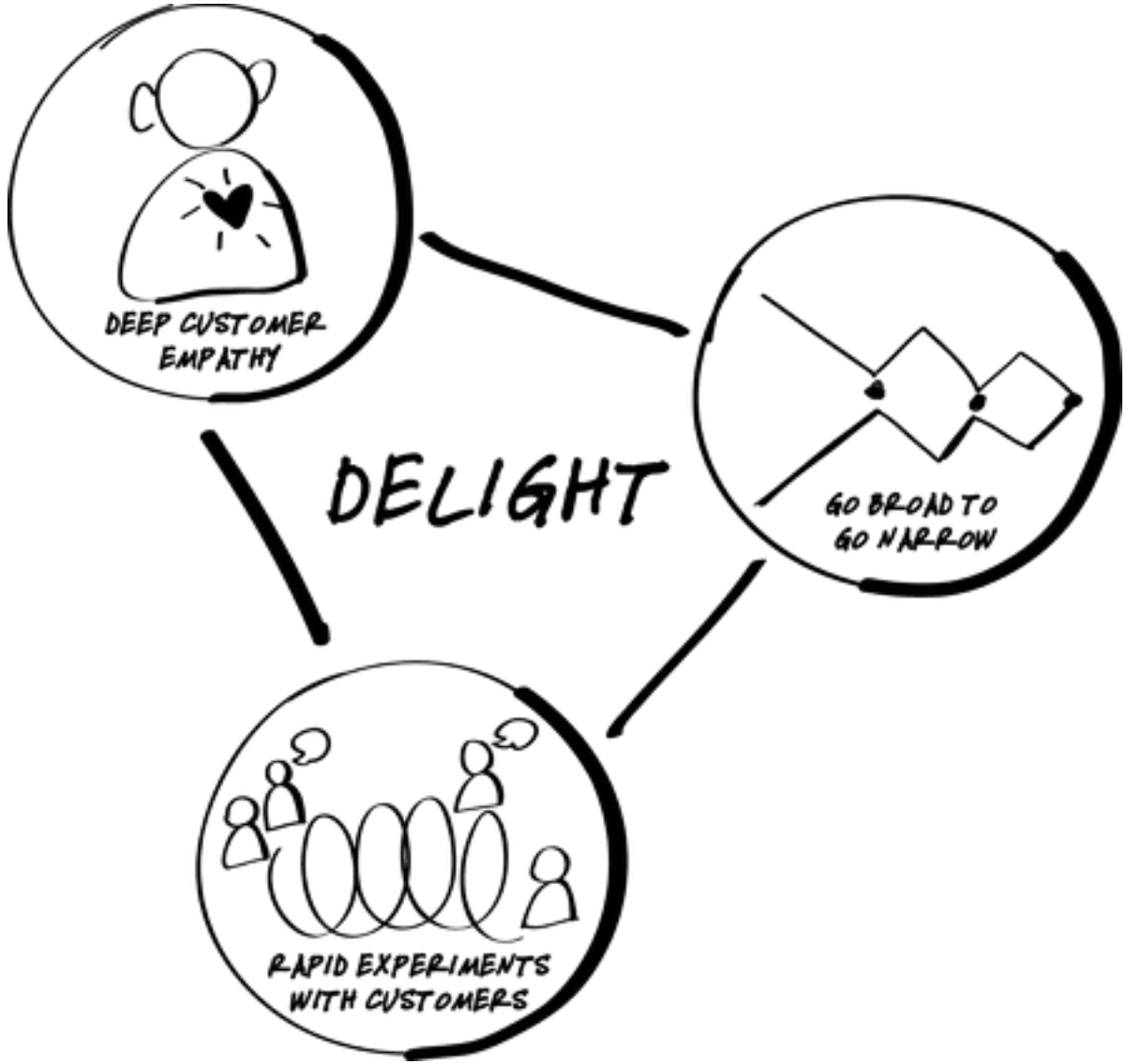
Design for Delight



> “ Design for Delight articulates Intuit’s approach to design thinking, based on deep customer empathy, idea generation, and experimentation.
>
> D4D provides the entire company with a common framework for building great products.”

CEO Brad Smith
Harvard Business Review
January 2015

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It’s a journey

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Show me

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Data Science new products

One-Time Analysis

Decision Support System

Decision Engine

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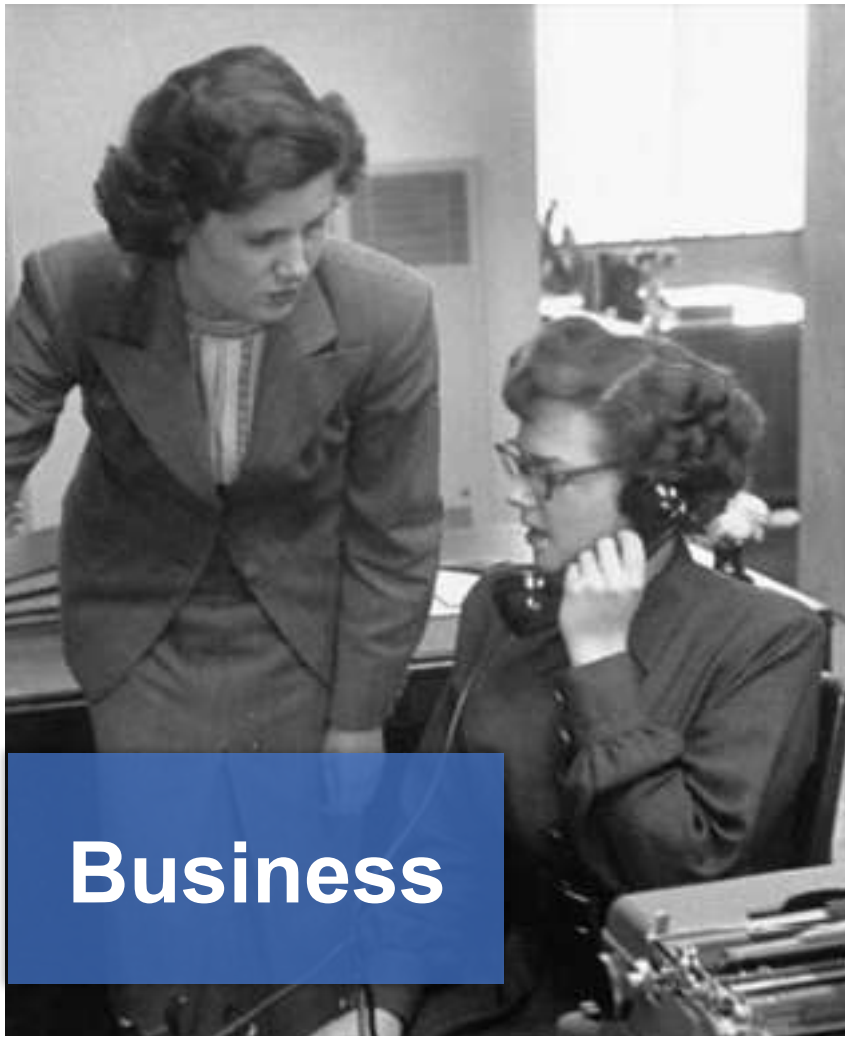
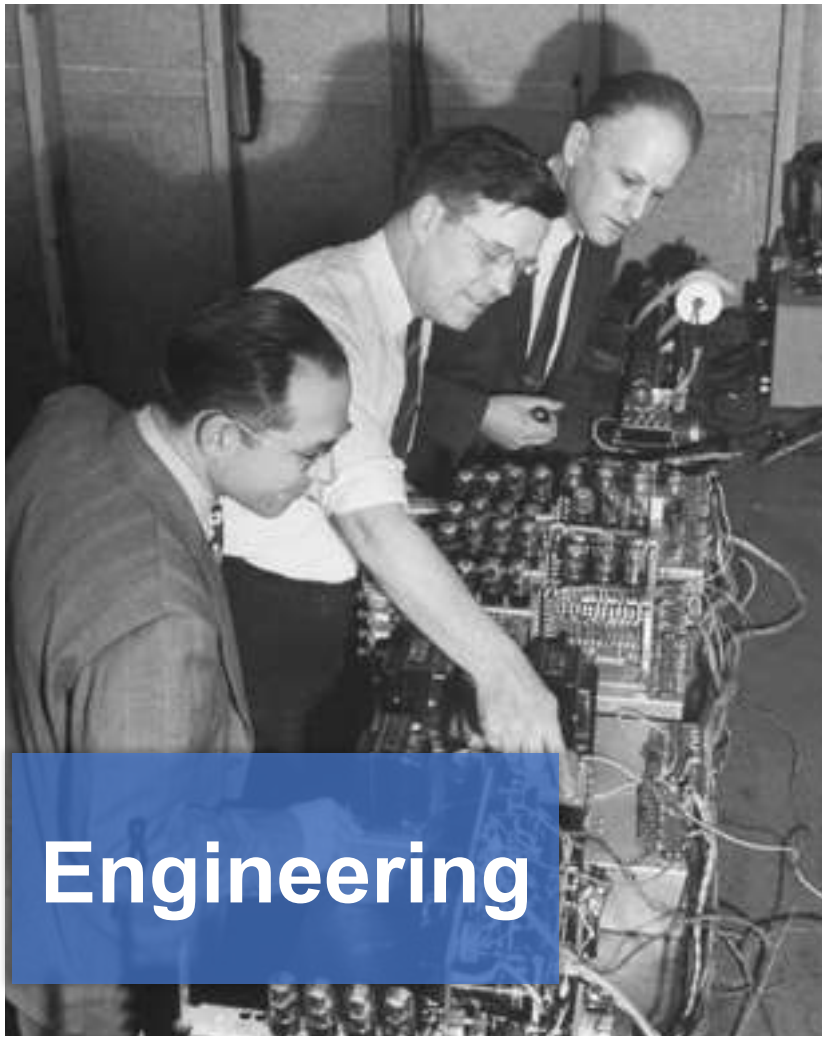
Data Science diverse customers





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The Data Scientist as Design Thinking leader

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The root cause of Data Science project failure

It’s hard to get an organization to adopt a new idea

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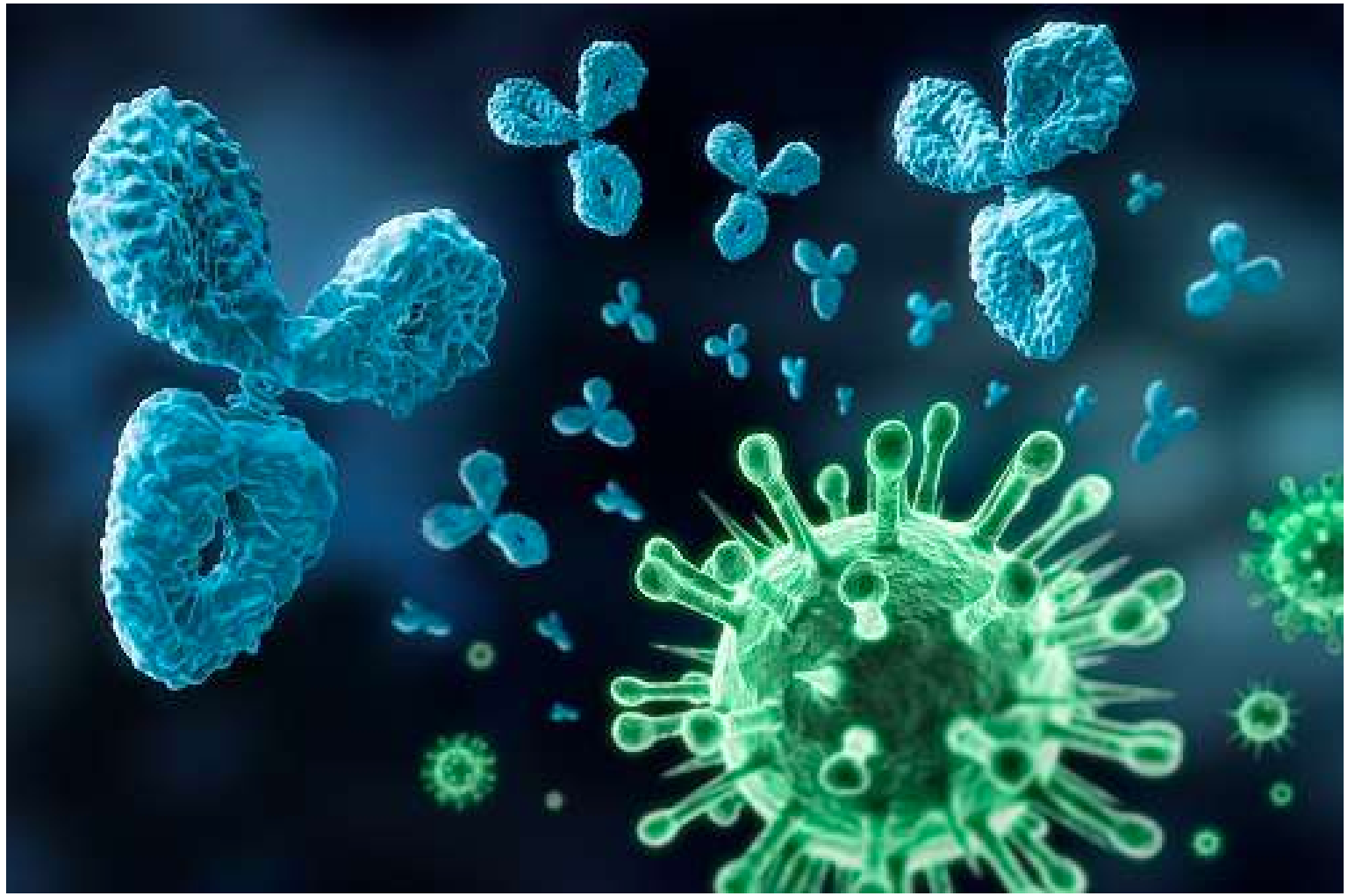
Organizations have immune responses, too



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Finally. The process. Let’s go!

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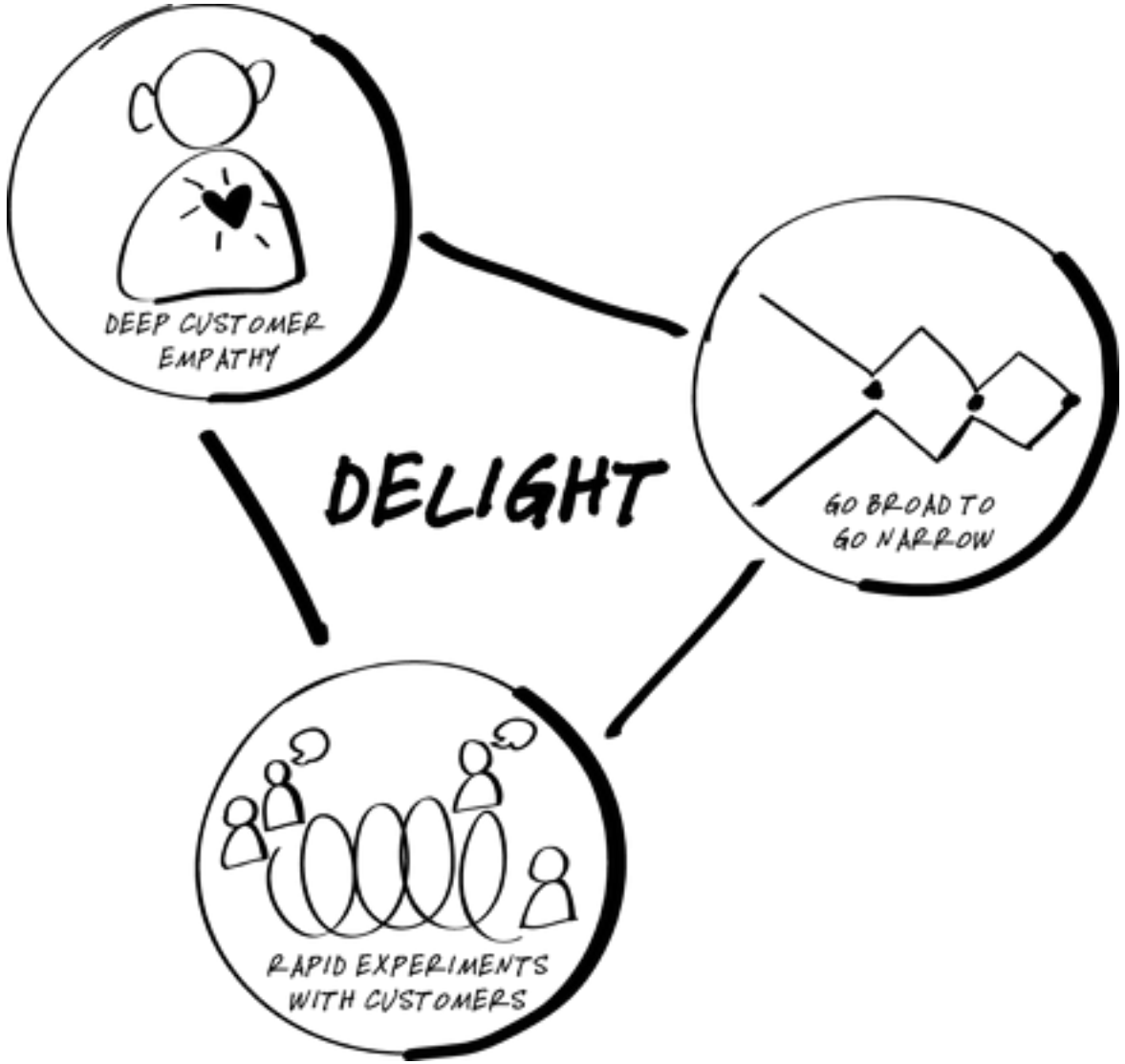
Design for Delight ++



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DEEP CUSTOMER
EMPATHY

The Data Scientist as detective

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Interview

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Synthesize

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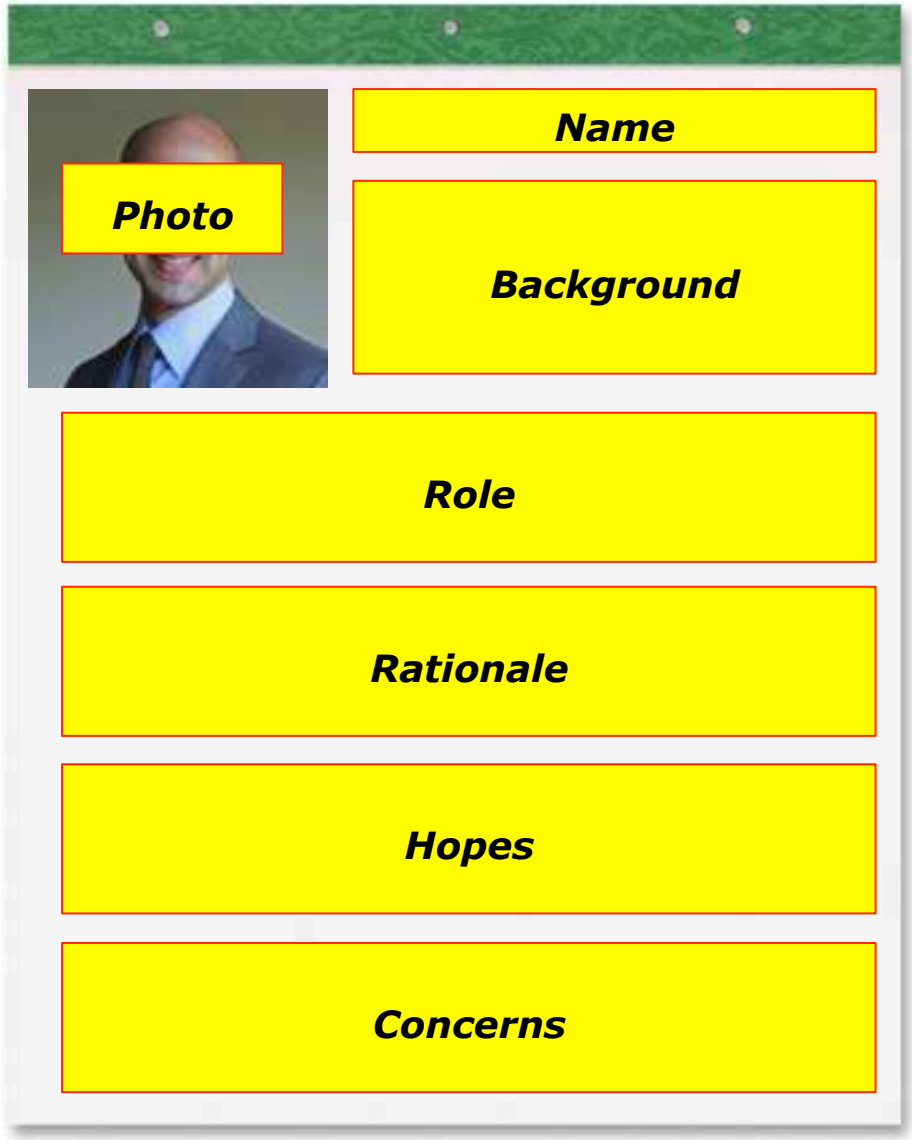
Personas



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Problem Statements

As a ***Role and 2-3 descriptive facts***

I want to ***Goal***

because ***Rationale***

but ***Obstacle***

so I feel ***Emotion***

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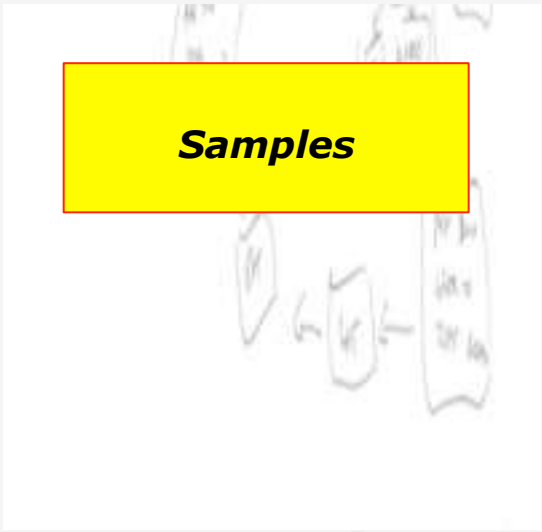
Environment

Artifact

Data



Samples

Systems

Sketches

Processes

Storyboards

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Design Evaluation Criteria

How will we evaluate

a proposed design?

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Solution Evaluation Criteria

How will we evaluate

an implemented solution?

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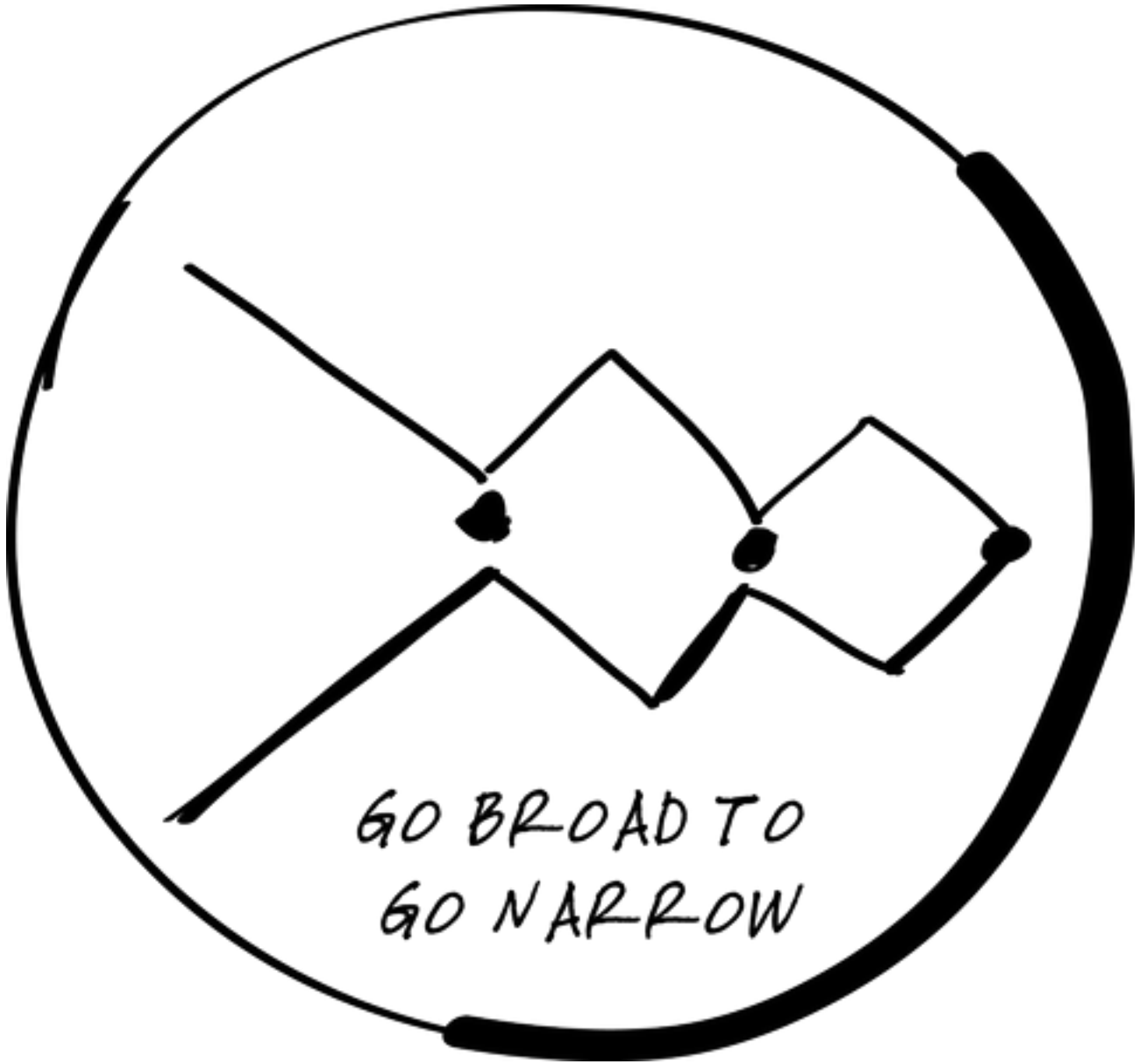
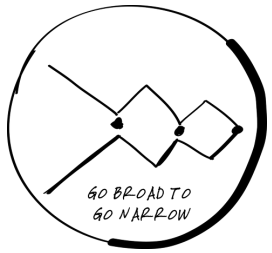

GO BROAD TO
GO NARROW



The Data Scientist as convener

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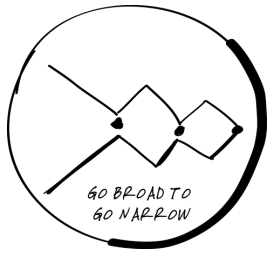
Review ettiquete

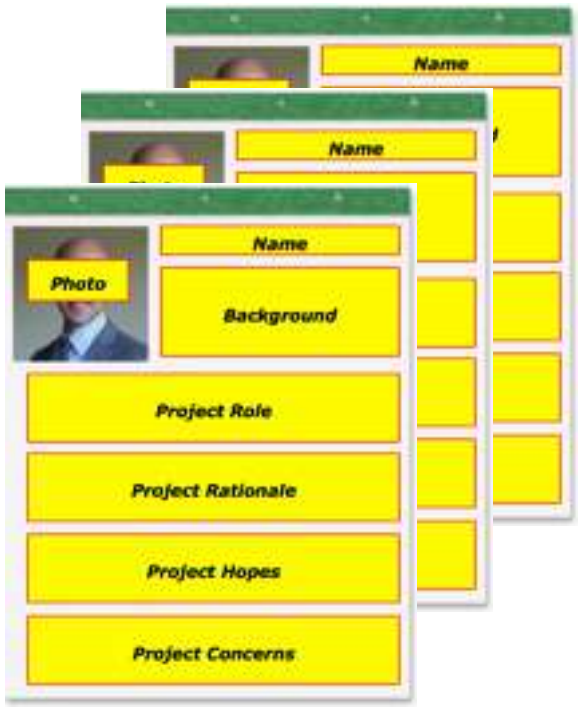
Brainstorming Rules

- Stay on topic
- One conversation at a time
- Don't criticize or ridicule
- Build on the ideas of others

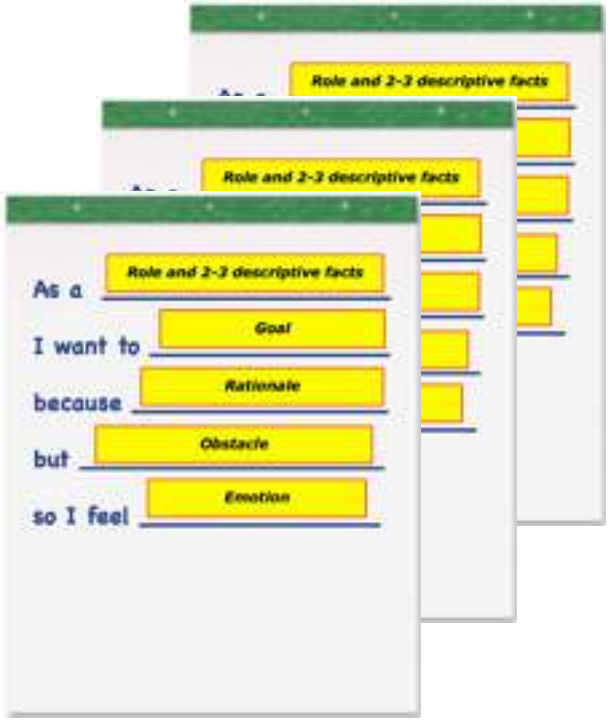


Set context

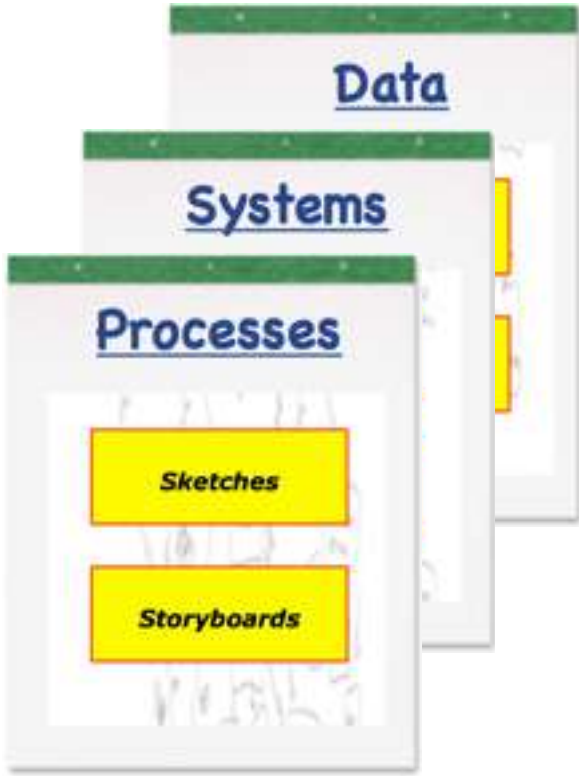
Personas



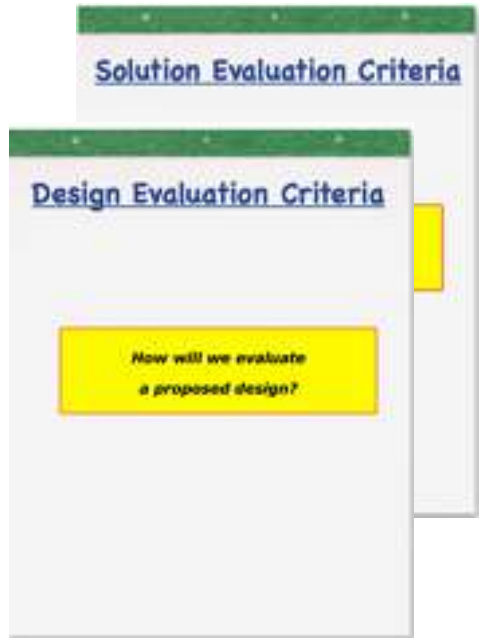
Problem Statements



Environment



Evaluation Criteria



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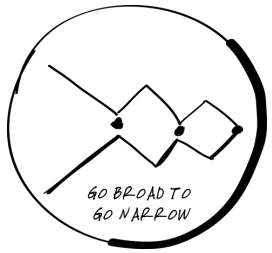

Facilitate idea generation and filtering

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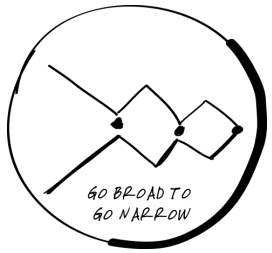

Solution hypothesis

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Solution hypothesis

Succinct statement of the best idea

Leap-of-faith assumptions

What must be true for the idea to work?

Experiment

What rapid experiment can we do?

What we'll learn

What will it teach us?

How we'll respond

What will we do, either way?

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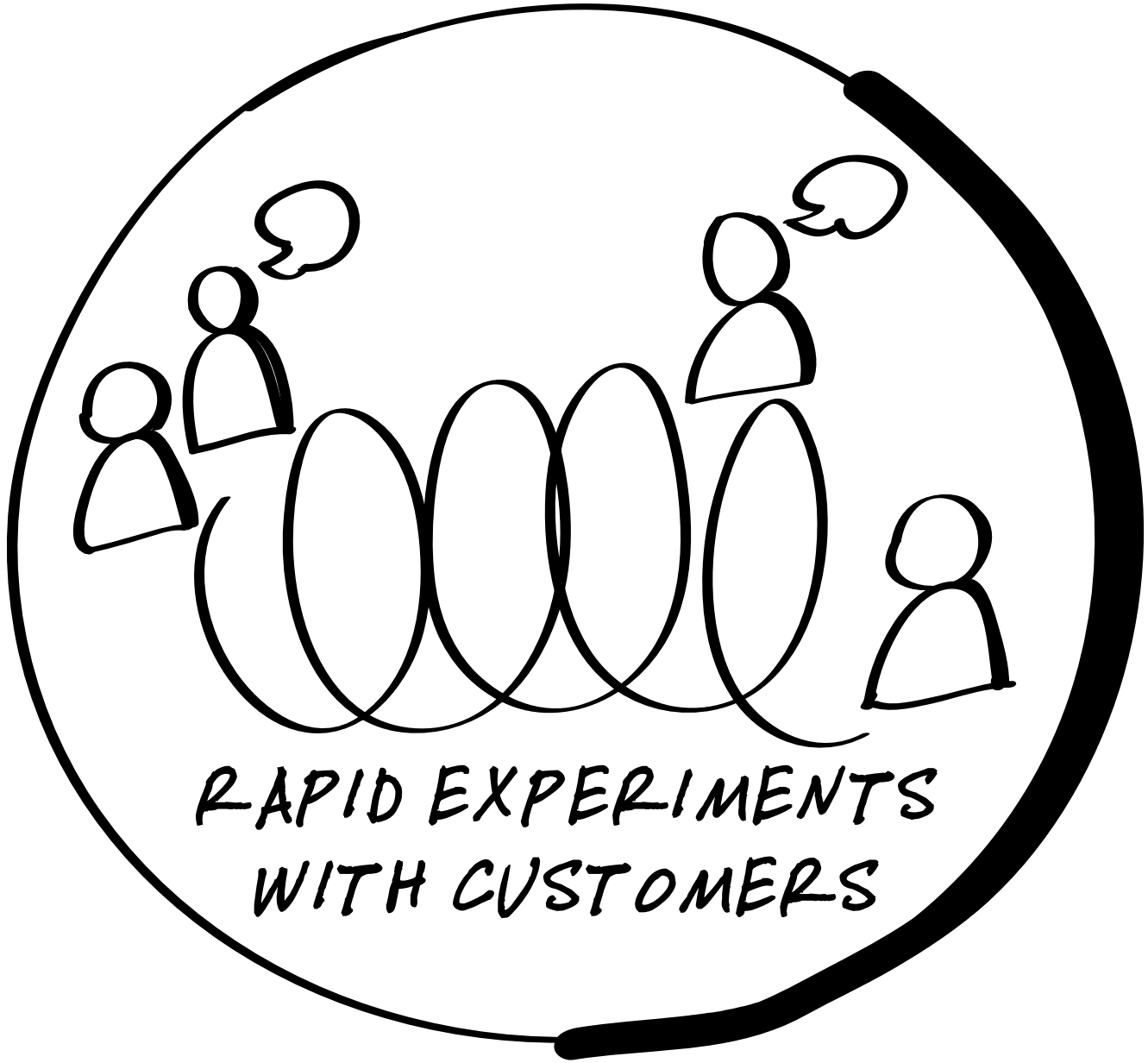
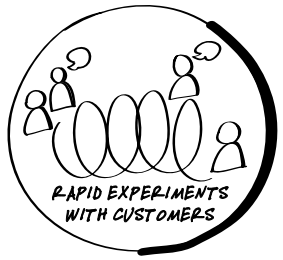
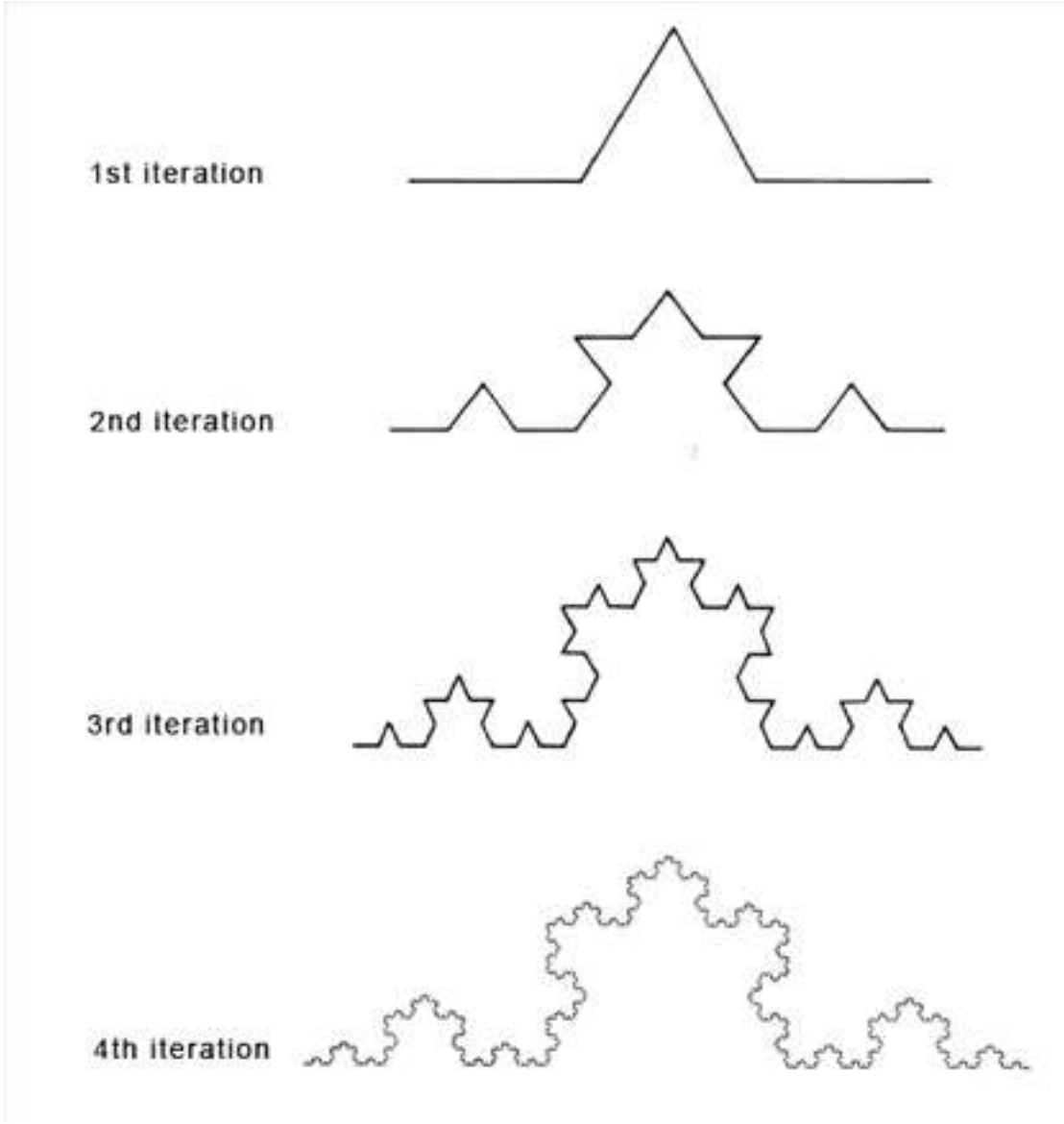

RAPID EXPERIMENTS
WITH CUSTOMERS



The Data Scientist as builder



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Paper prototype

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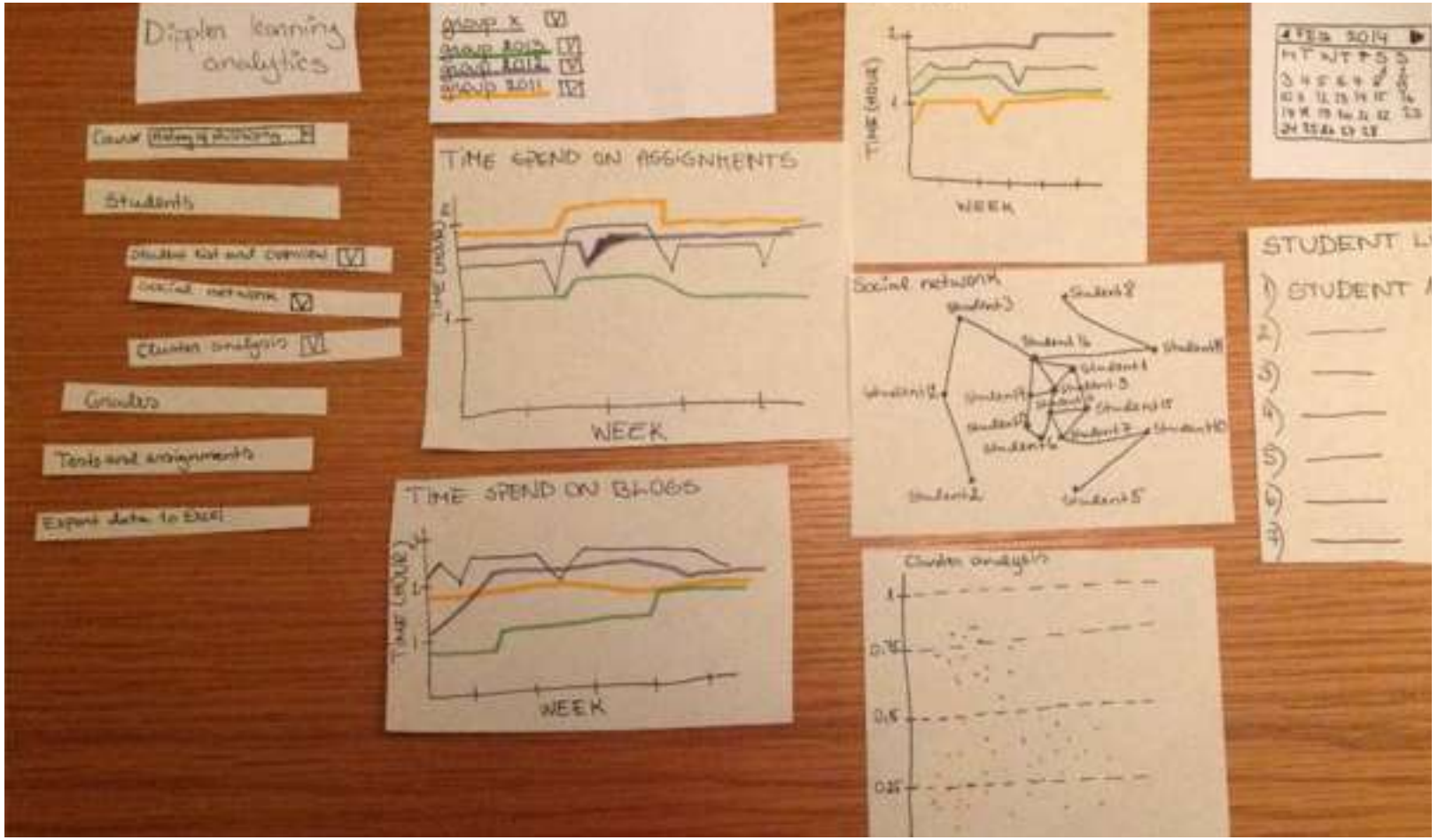

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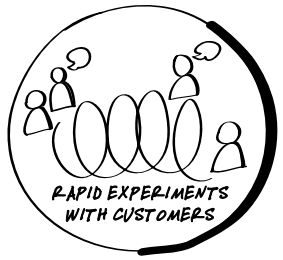
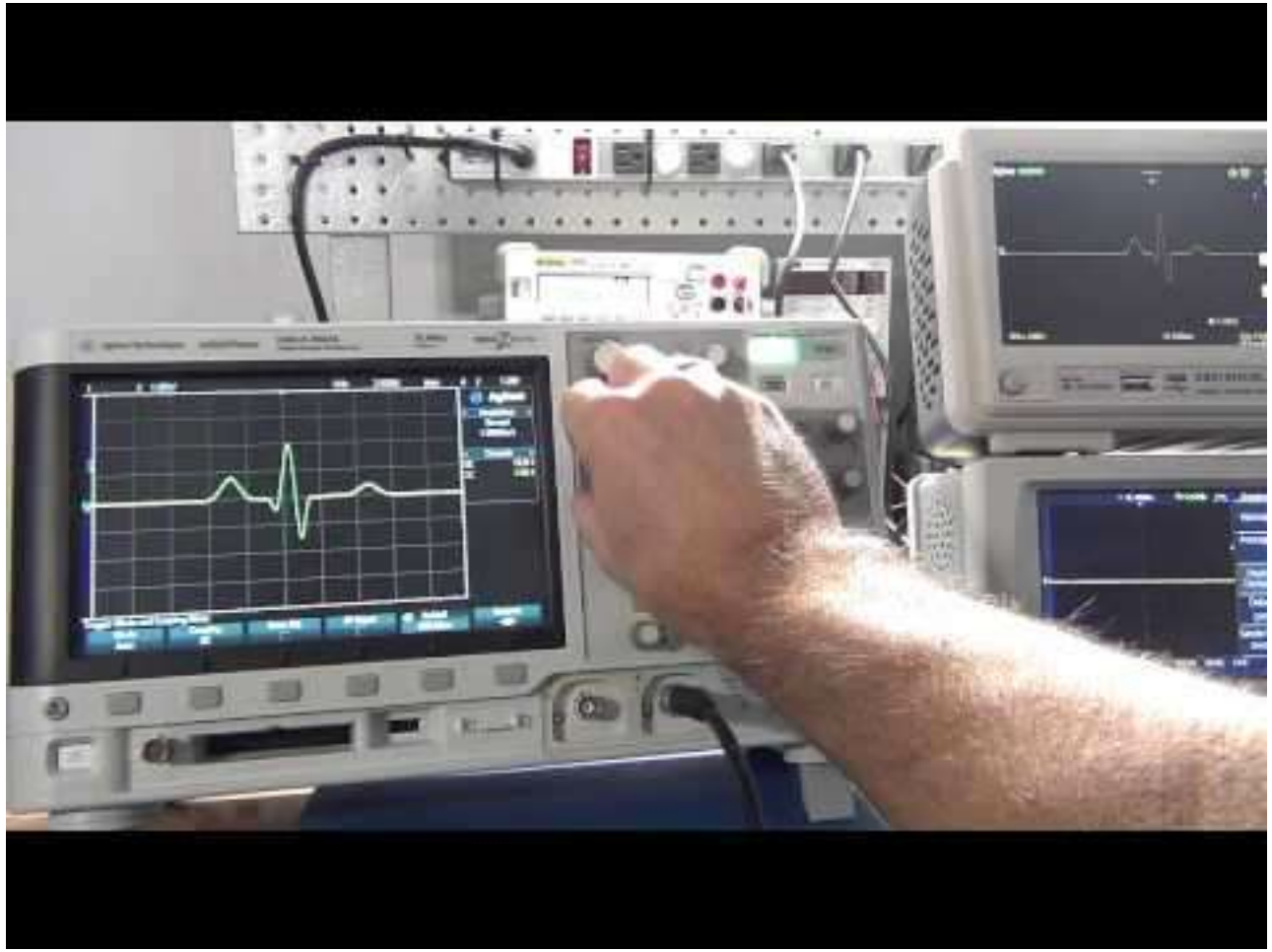


Algorithm testing rig



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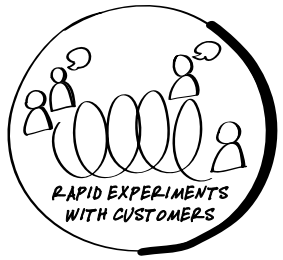
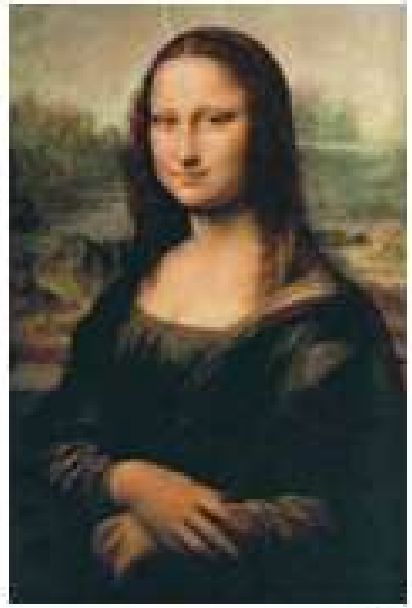


Iterate

1

2

3



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One step at a time

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Enjoy!

http://bit.ly/**bigdataanddesign**

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