



Co-Making Great Products

How whole teams work together to find problems, invent solutions, and deliver great products

Jeff Patton

jeff@comakewith.us

twitter: [@jeffpatton](https://twitter.com/jeffpatton)

This team has delivered high quality working software every sprint

But, they're frustrated because they're failing



snagajob.com™

This team thinks about

SUCCESS

differently

1. Safety isn't success
2. Velocity isn't value
3. The invention game
4. Deliberate discovery
drives delivery
5. Reality bites

These three companies are
focused on winning the
software development game

snagajob.comTM

NORDSTROM

edmunds SM

1

Safety isn't success

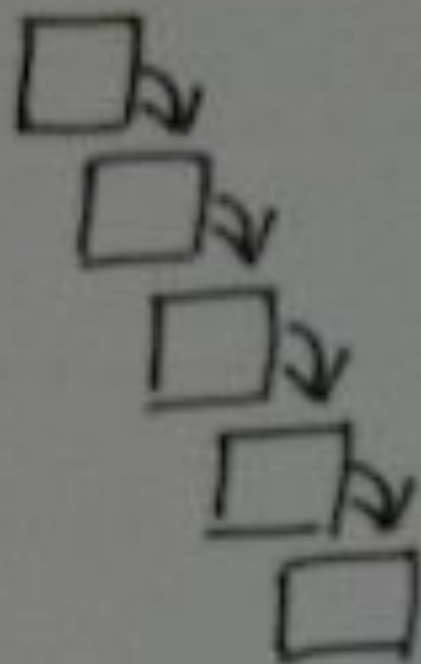
Our everyday process requires
so much rigor, there wasn't really a
place for innovation



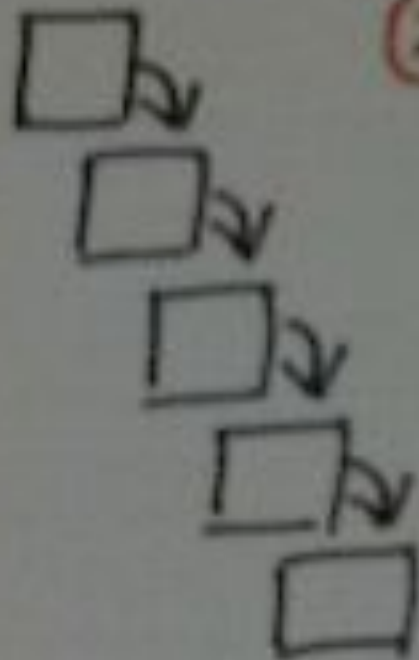
JB Brown
Nordstrom Innovation Lab

Traditional sequential
development process is
safe for individuals

Royce's model

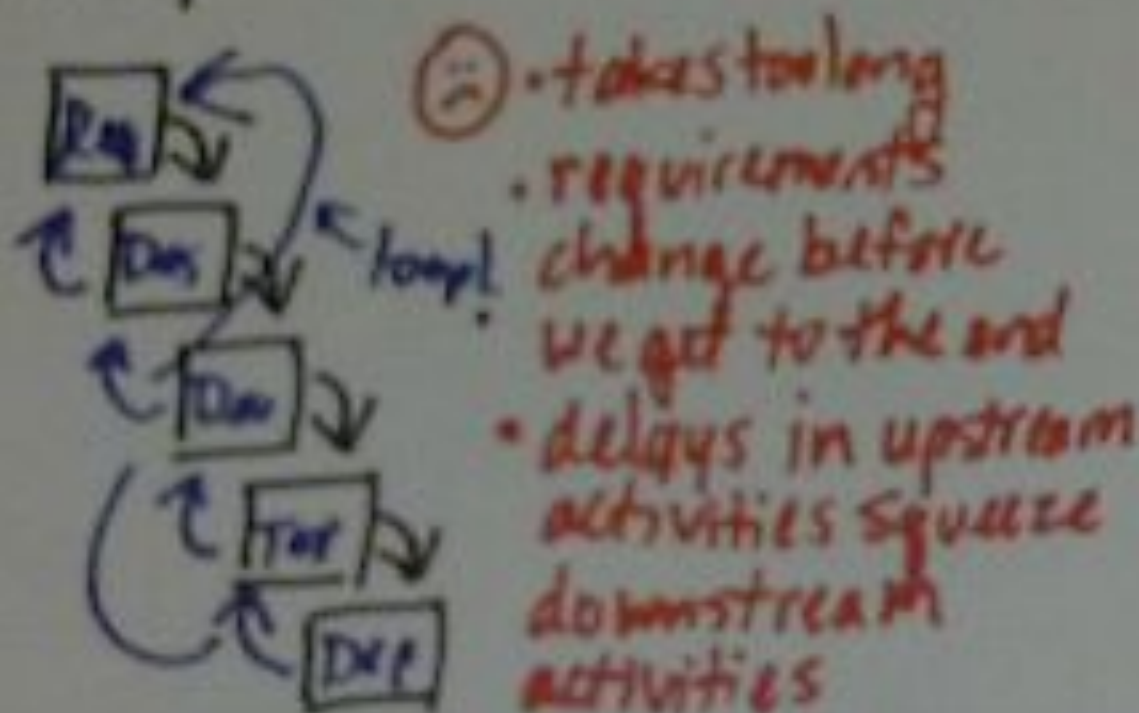


Royce's model



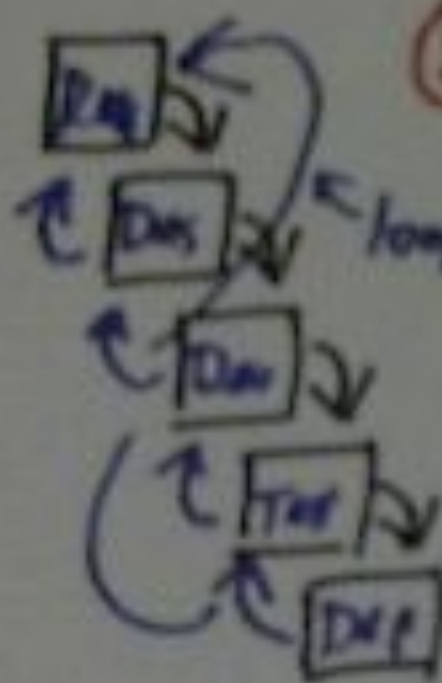
- ☹️ • takes too long
- requirements change before we get to the end
- delays in upstream activities squeeze downstream activities

Royce's model



- ☹️ • takes too long
- requirements change before we get to the end
- delays in upstream activities squeeze downstream activities

Royce's model



- ☹️ • takes too long
- requirements change before we get to the end
- delays in upstream activities squeeze downstream activities

CYA

- 😊 • easy to understand
- easy to plan
- easy to track
- looks intuitive
- clear roles & responsibilities
- clear accountability

Separation of concerns is
problematic for process



Your jobs been outsourced to a cheaper company.



2

Velocity isn't value

We're great at delivering software using agile approaches. We've just realized it doesn't matter.

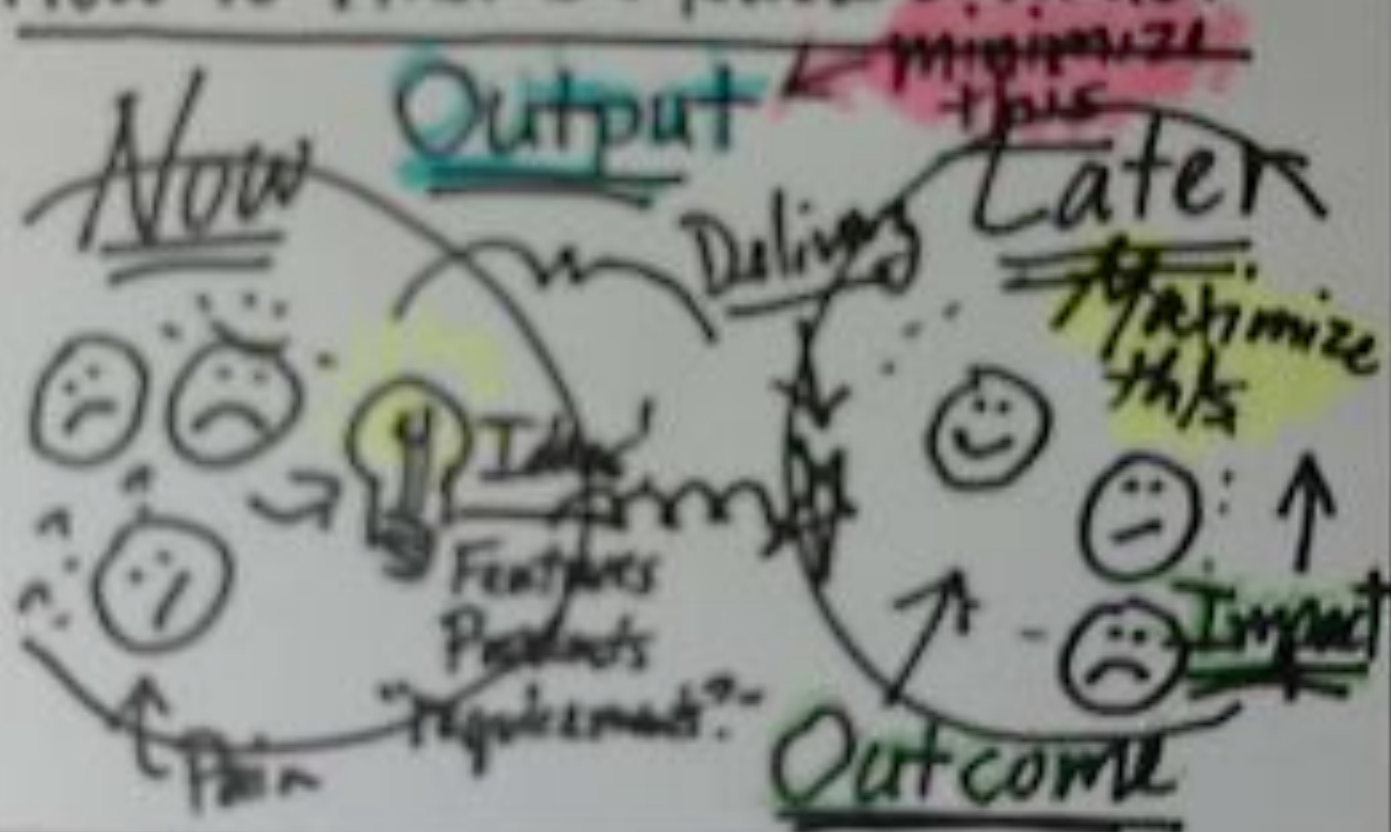


Eugene Park
Edmunds.com

We're not here to build
software

we're here to change the
world

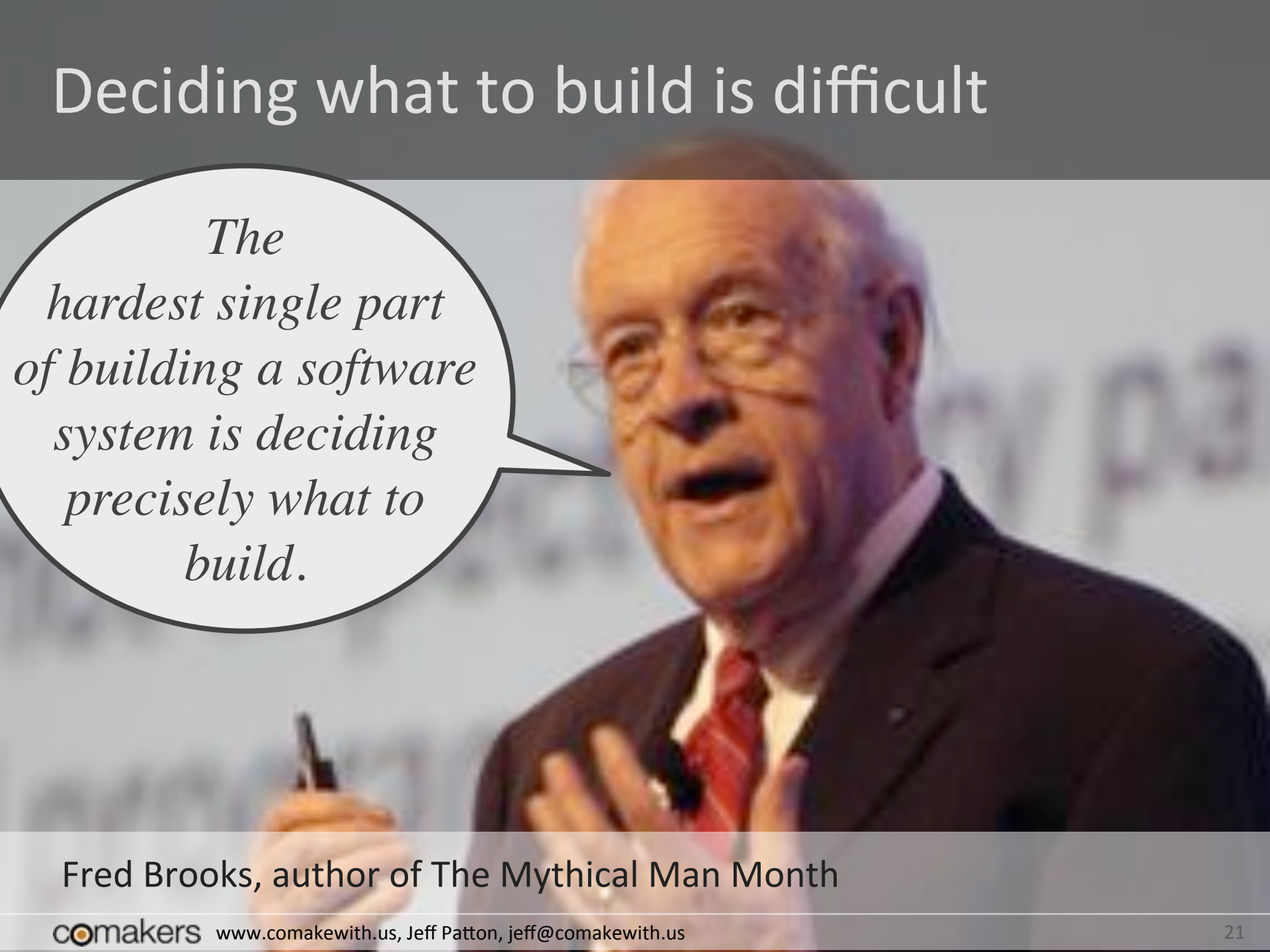
How to find & Measure Value:



R & D

[requirements & design]

Deciding what to build is difficult

A photograph of Fred Brooks, an older man with glasses, wearing a dark suit and a red tie. He is speaking and gesturing with his hands. A speech bubble is overlaid on the left side of the image, containing a quote.

*The
hardest single part
of building a software
system is deciding
precisely what to
build.*

Fred Brooks, author of *The Mythical Man Month*

Our decisions become requirements

*If it's your
decision to make,
it's design.
If not, it's a
requirement.*

Alistair Cockburn, author of Agile Software Development: The Cooperative Game

two words:

UNDERPANTS

GNOMES



South Park clip, the underpants business:

<http://www.southparkstudios.com/clips/151040>

To get value
you must form
a hypothesis on
how you'll get it.
↑ phase 2

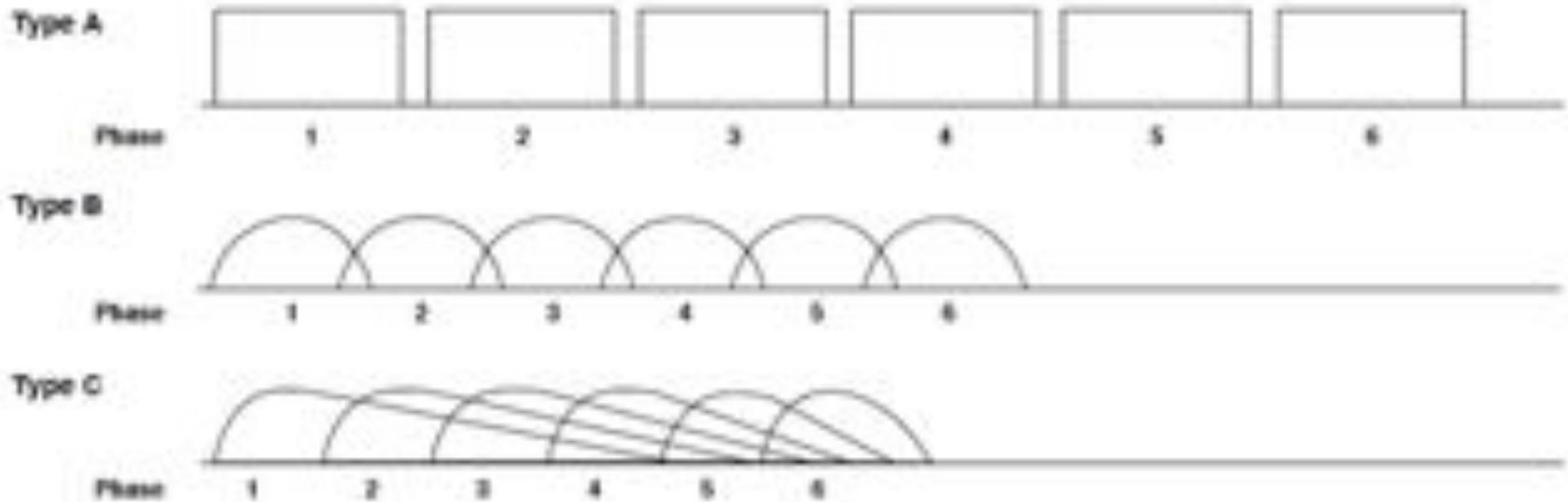
3

The invention game

Process

EXHIBIT 1

Sequential (A) vs. overlapping (B and C) phases of development



“Under the rugby approach, the product development process emerges from the constant interaction of a hand-picked, multidisciplinary team whose members work together from start to finish.”

From the 1986 Harvard Business Review paper “**The New New Product Development Game**” by Takeuchi and Nonaka

Game

Process \neq Skill

knowing how doesn't make you good

Roles \neq Positions

You might primarily do one thing, but you can't win by doing only one thing

Finishing On Time \neq Winning

Keep score, don't just keep time

“Design Thinking” is a learning and invention game



It seems like common sense

Understand the problem you're solving & focus on specific problems



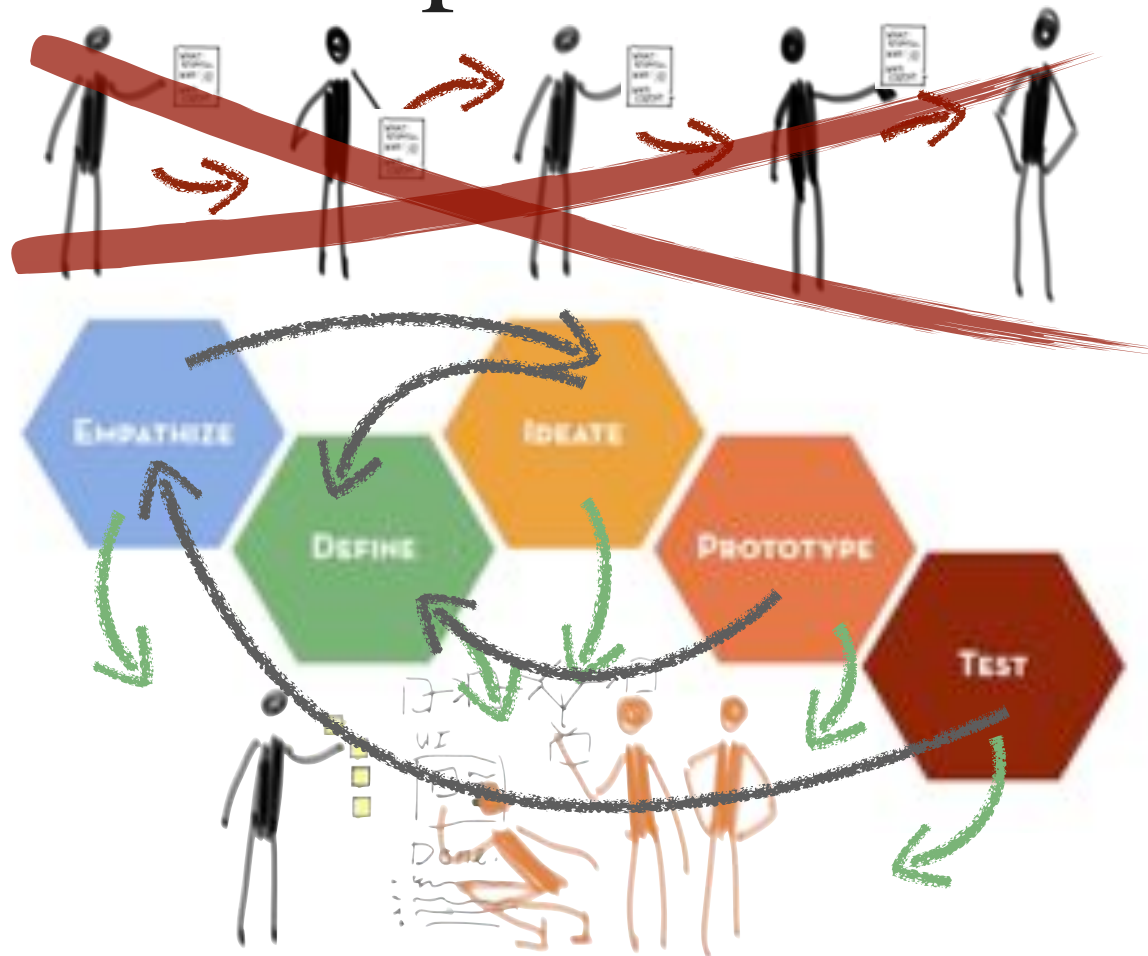
Consider lots of possible solutions

Make sure it'll work before investing big

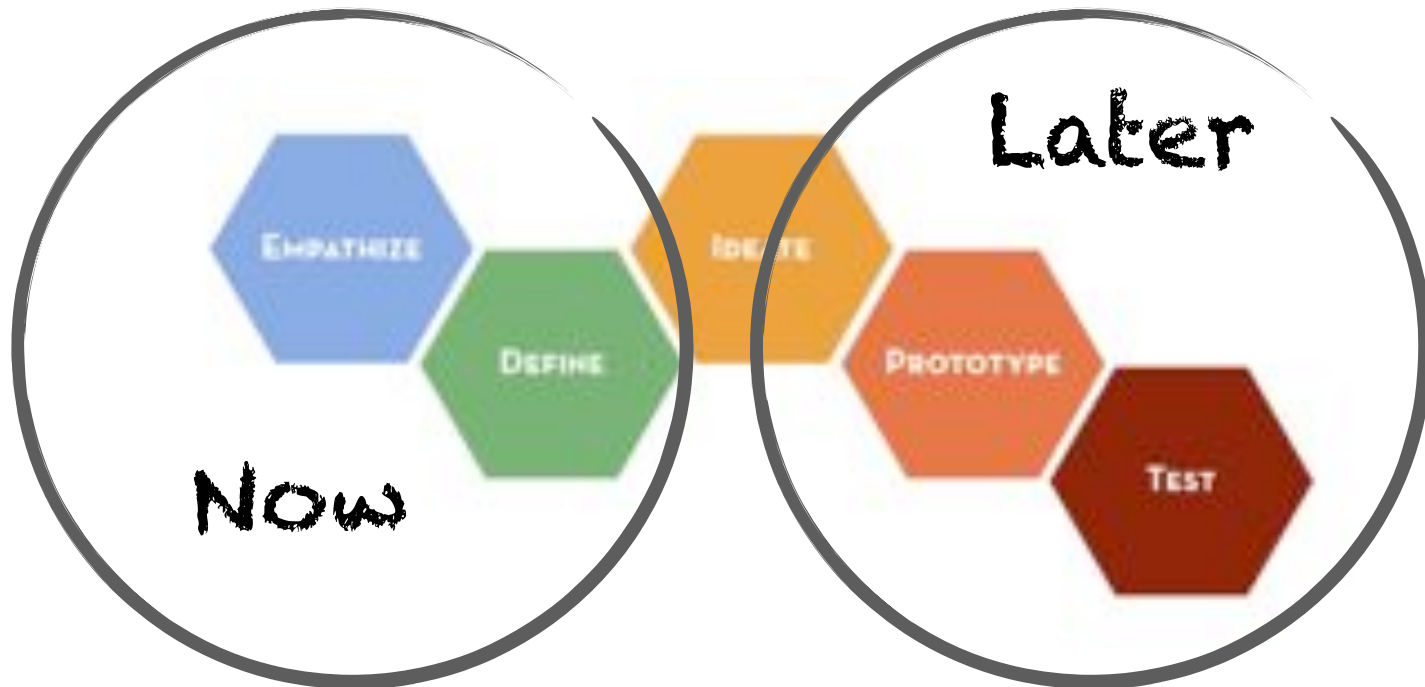
There is nothing more uncommon than common sense.

Scottish Mathematician
Thomas Chalmers

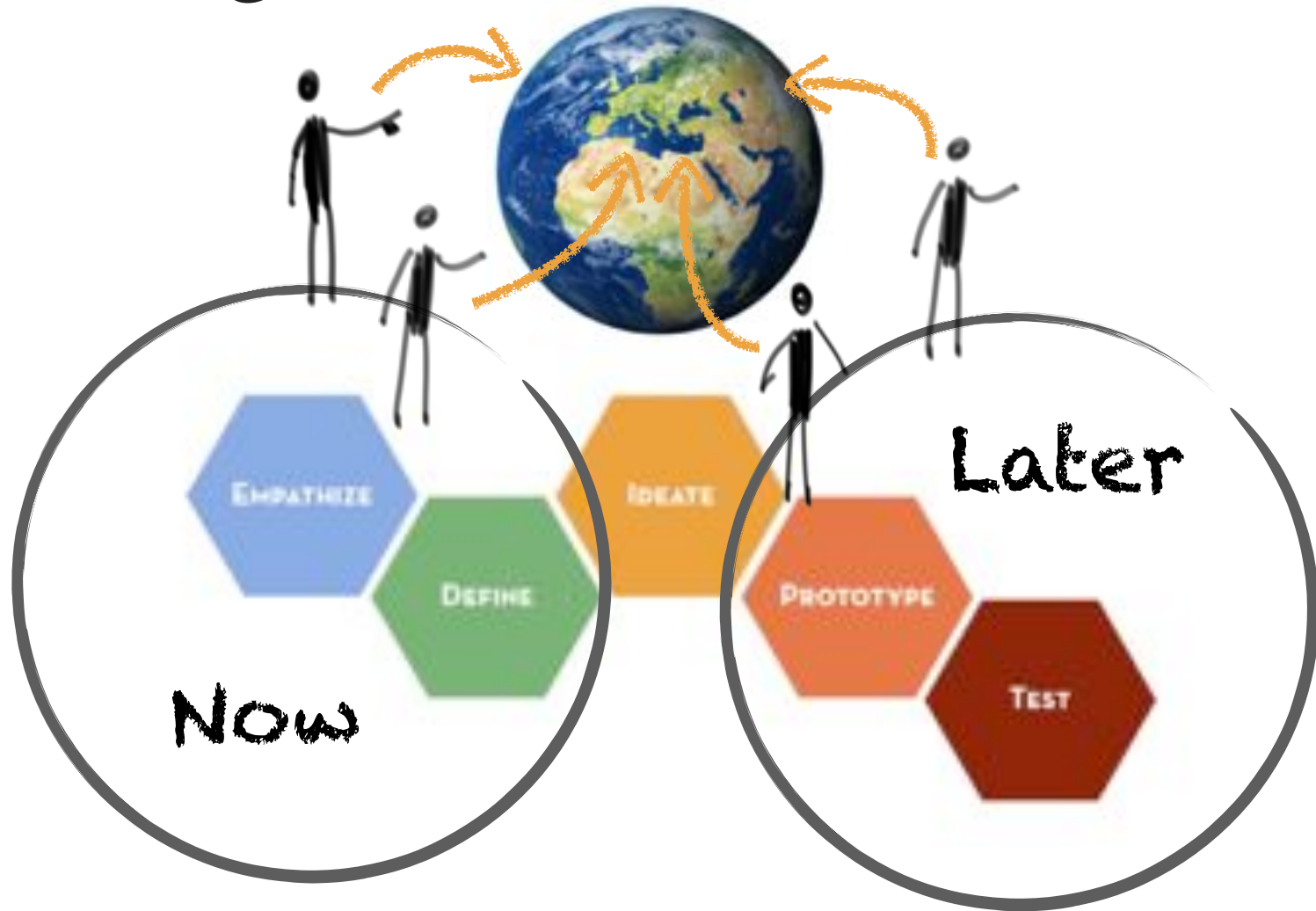
Different ways of thinking - NOT process roles, hand-offs, sequence and phases



Study the world now, imagine and test the a new future world



Learning happens outside the building



UX Designers act as experts and guides

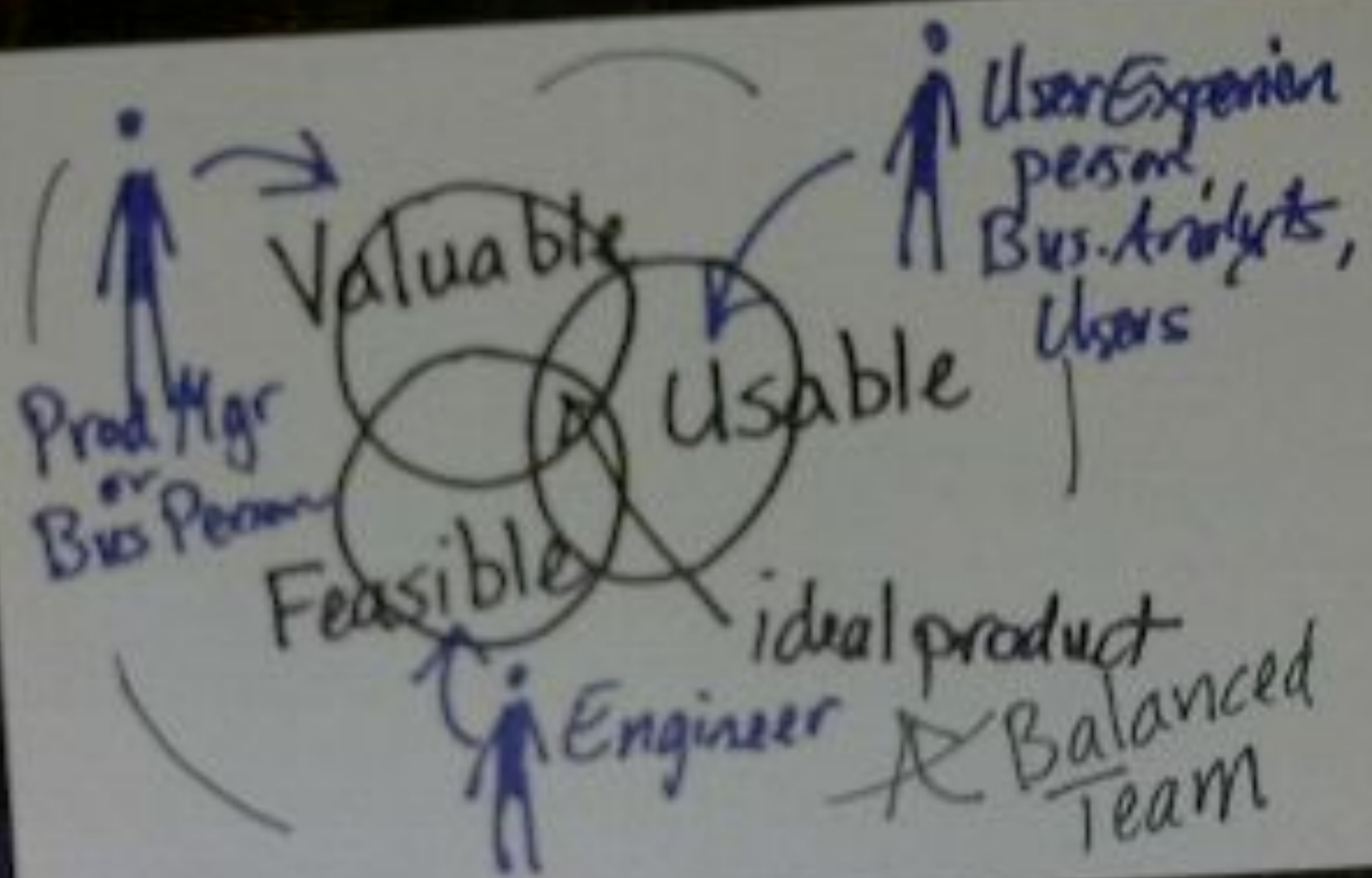


“Design isn’t a product that designers produce, design is a process that designers facilitate.”

-- Leah Buley

Leah Buley

www.adaptivepath.com/aboutus/leah.php



Who will I blame if this doesn't work?

Who will I blame if this doesn't work?



Who will I blame if this doesn't work?

Who will I blame if this doesn't work?

Share understanding,
not documents

Often when we verbally discuss ideas, we may incorrectly believe we have the same understanding



"I'm glad we all agree then"

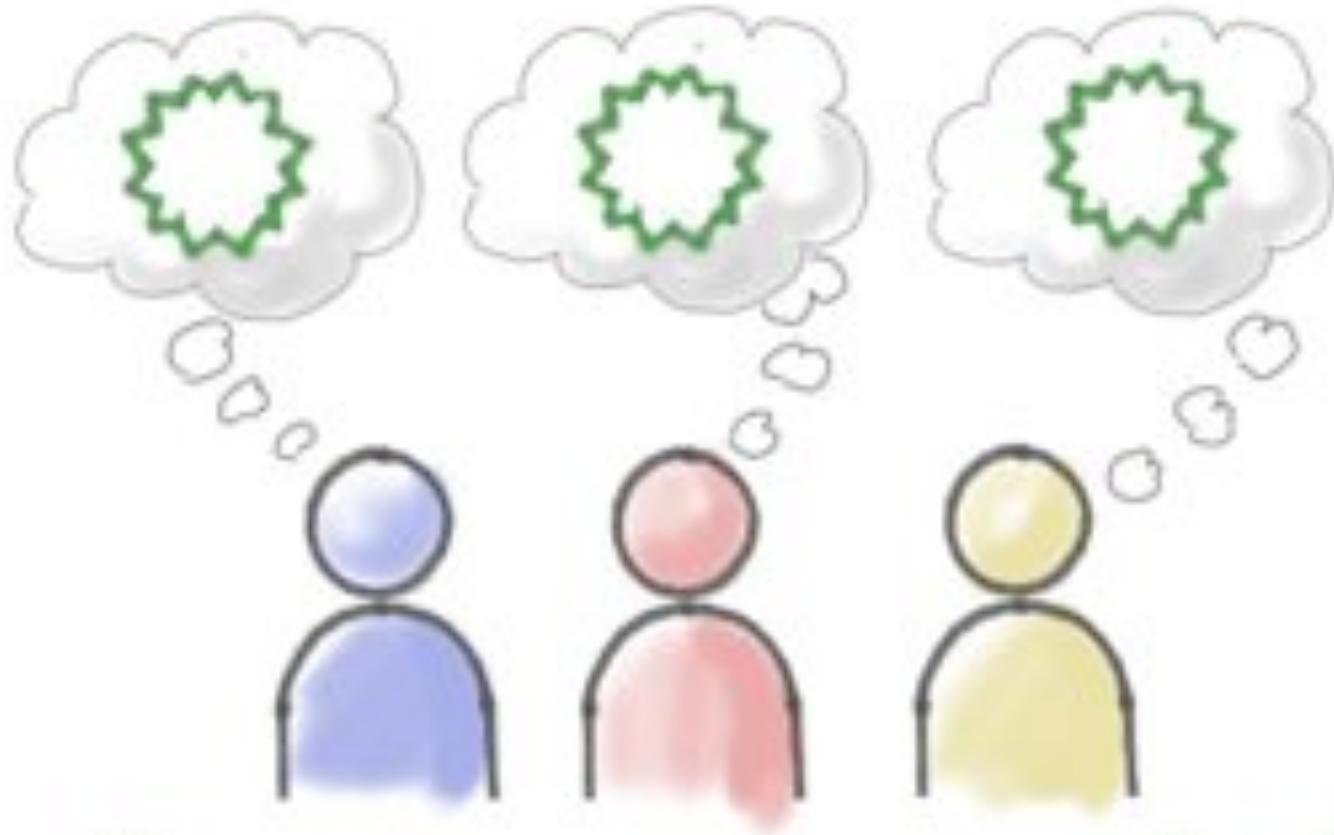
Representing our ideas as models allows us to detect inconsistencies in our understanding



Through discussion and iterative model building we arrive at a stronger shared understanding

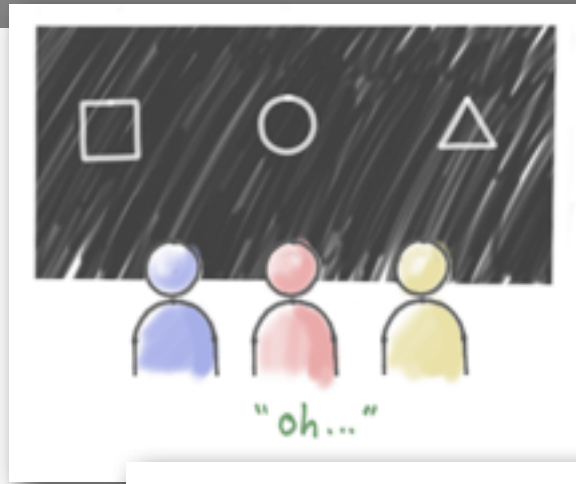


Using that **shared understanding** we can work together to arrive at the same future world



"I'm glad we all agree then"

Shared understanding is the result of successful collaborative work



Words and pictures help everyone build shared understanding



GameStorming is a good manual for effective collaborative work



Having a business meeting without artifacts and meaningful space is like meeting blindfolded with your hands behind your back. Yes, you can do it, but why would you want to?



Shared understanding takes space

“Make Space” is the term coined by the Stanford Design School to describe effective collaborative workspace

Space to model and draw:

- Walls and whiteboards
- Tabletops

Flexible discussion & seating space

Places to store the artifacts created during discovery work



Shared understanding takes space

“Make Space” is the term coined by the Stanford Design School to describe effective collaborative workspace

Space to model and draw:

- Walls and whiteboards
- Tabletops

Flexible discussion & seating space

Places to store the artifacts created during discovery work



A large work area in the Stanford d.school supports many small design teams.

Virtual Make-Space?

4

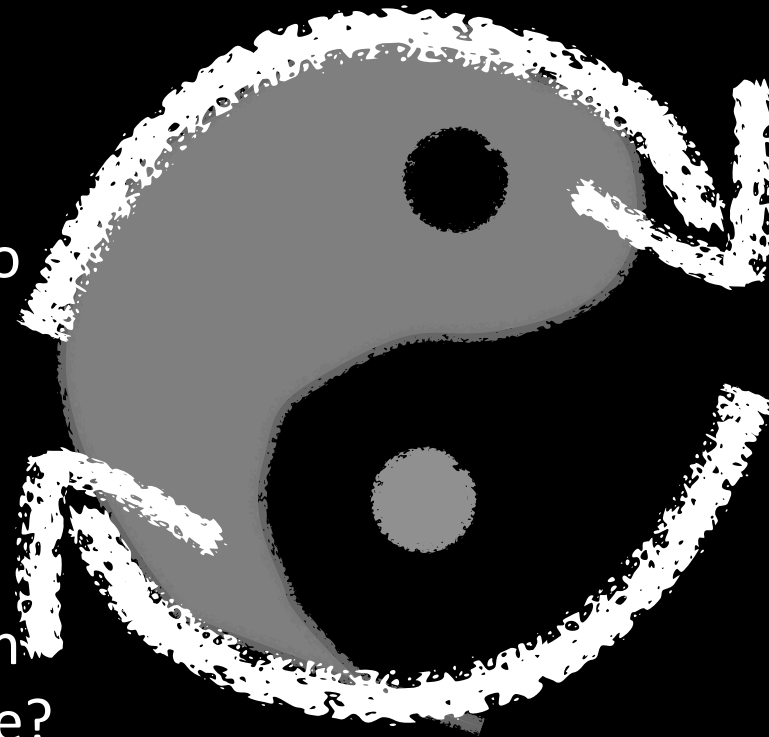
Deliberate discovery
drives delivery

Discovery compliments delivery

Discovery

Use discovery to answer big questions

- What problems are we solving?
- What solution do people want?
- Can people effectively use our solution?
- Can we build it in the time we have?



Delivery

Use delivery to execute

- Plan the details
- Design, develop, and test
- Measure development speed
- Evaluate progress
- Evaluate quality

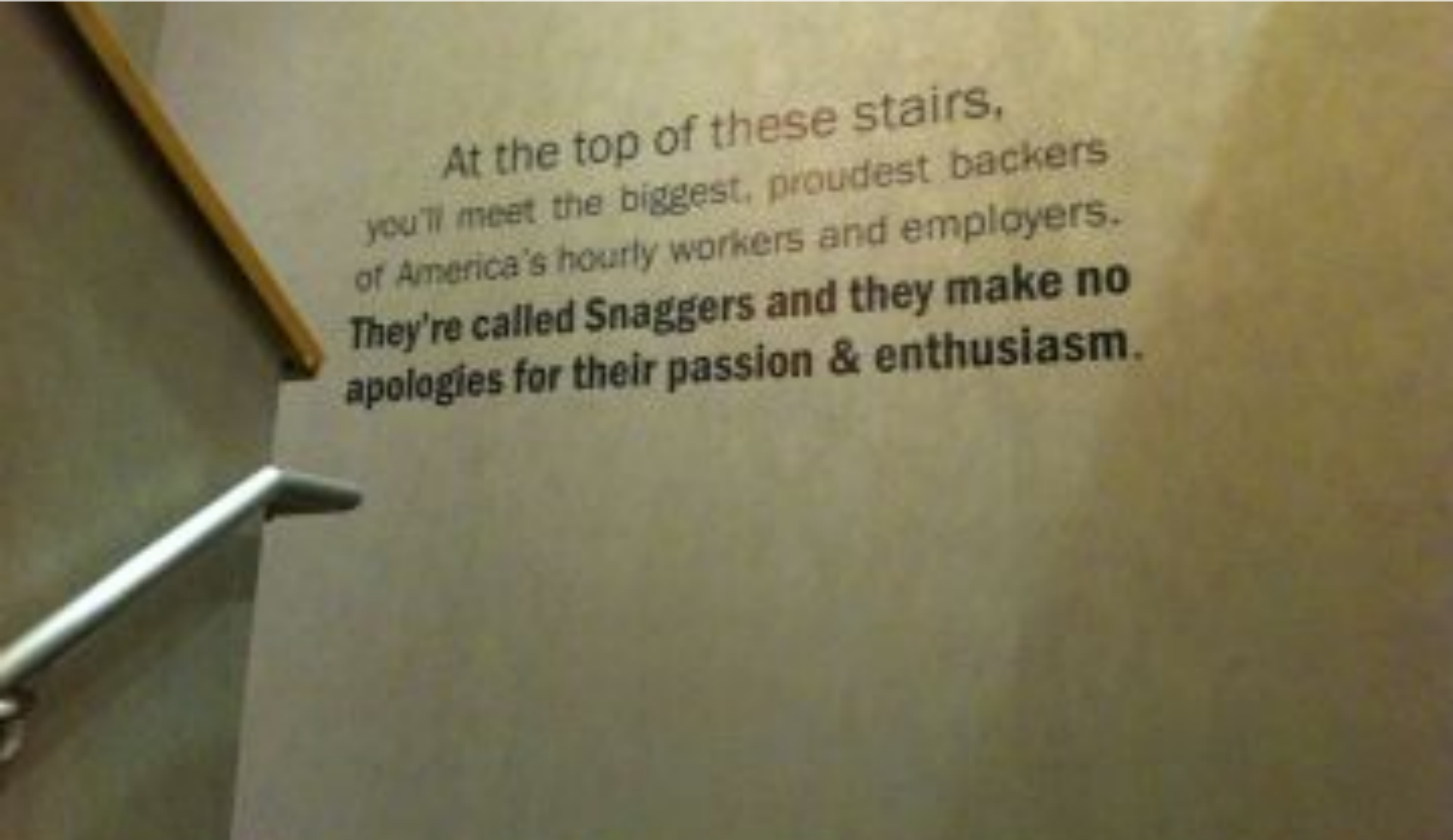
Morale suffers when
all we do is build software.

The thrill of building
something fast, measuring it well,
and debating the results and planning
next steps make the whole effort
worthwhile.



Tom Illmensee
snagajob.com

As you walk up the stairs at Snag-a-job, you'll see the first evidence of company values



At the top of these stairs,
you'll meet the biggest, proudest backers
of America's hourly workers and employers.
**They're called Snaggers and they make no
apologies for their passion & enthusiasm.**

DON'T FORGET TO
tip, thank & high-five
AMERICA'S HOURLY WORKFORCE.

Head down the stairs and you'll get an informal reminder of the importance of users of the company's product

Caring about their users is part of their DNA

Discovery teams build shared understanding of:

- the present problems
- the future world
- the solutions we think will get us there

Discuss and model to build shared understanding of the current and future world



Gary Levitt, owner & designer of Mad Mimi

Story Maps help us build shared understanding about the future world

product goals
(why build the product)

users
(what are their goals)

backbone
(gives structure to the map)




workflow
(from the user's perspective)

details

- smaller steps
- alternative steps
- UI details
- technical details

Gary Levitt, owner & designer of Mad Mimi

Simple lightweight pragmatic personas build shared understanding about users

| | | | | | | | |
|--|--|---|--|--|--|---|--|
| <h3>Margarette - Obituary Reader</h3>  | | <h3>Stanley - Funeral Director</h3>  | | <h3>Rachel - Next of Kin</h3>  | | | |
| <p>Holland, MI married with adult children and grand children reads the weekend paper work & church social network lived in Holland for 20 years</p> | | <p>Smith Family Funeral Home One of 3 funeral directors 1 full time support person, 1 part time 250 funerals a year</p> | | <p>Mount Pleasant, MI Father, who lives in FL Mother RL has just died She has brothers & sisters but doesn't visit - they make funeral arrangements</p> | | | |
| <h4>Objectives</h4> <ul style="list-style-type: none"> Know when people in her social network pass Know how to respond - what to do and do it Likes to read a good story about someone who passed Seems to be a prominent member of close family Short term reminder e.g. what funeral & cost | | <h4>Values</h4> <ul style="list-style-type: none"> Suggest, on a daily basis, passing when people in her social network have passed Provide info to help her decide what to do and do it Provide an enjoyable experience helping about the lives of community members who passed Suggest her need for education reminder a long term memory | | <h4>Objectives</h4> <ul style="list-style-type: none"> Wants to collect & submit the information (quick) Early get the stuff to all the places it needs to be Seamless experience for client family - no confusion from client family | | <h4>Values</h4> <ul style="list-style-type: none"> Help him avoid mistakes - make it easy to correct them Single source of placement Help him understand & meet death Help him get it done, quickly so he can do other things | |
| <h4>Objectives</h4> <ul style="list-style-type: none"> Celebrate her father Follow his wishes Know what to do so she can do the right thing Let the right people know in a timely manner Tell the story of her father's life | | <h4>Values</h4> <ul style="list-style-type: none"> Get the obituary published in the right places at the right time Get it right - so no mistakes (complete, spelled correctly, etc) Looks good, professional | | | | | |

Building them together helps us learn what we don't know



Sharing and talking about them with whole teams builds shared understanding



You'll need face time with real people to understand



You'll need to leave your office and visit theirs



Go where the people you're helping work



Go where the people you're helping work



Go where the people you're helping work



Go where the people you're helping work



Go where the people you're helping work

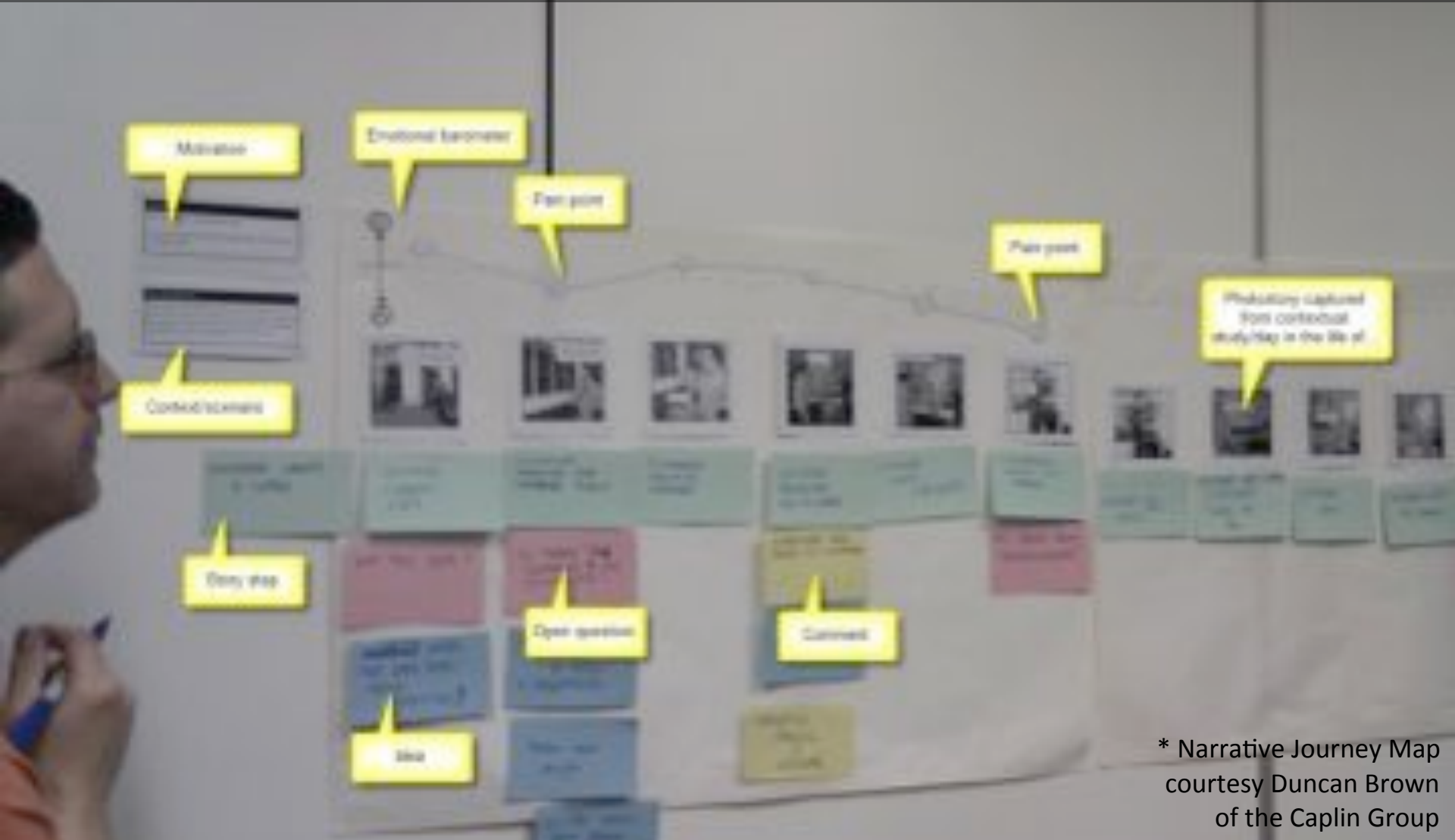


Map what you learned to build shared understanding of today's world



* Narrative Journey Map
courtesy Duncan Brown
of the Caplin Group

Journey maps describe today's world



* Narrative Journey Map
courtesy Duncan Brown
of the Caplin Group

Building a map together helps us explore the whole product



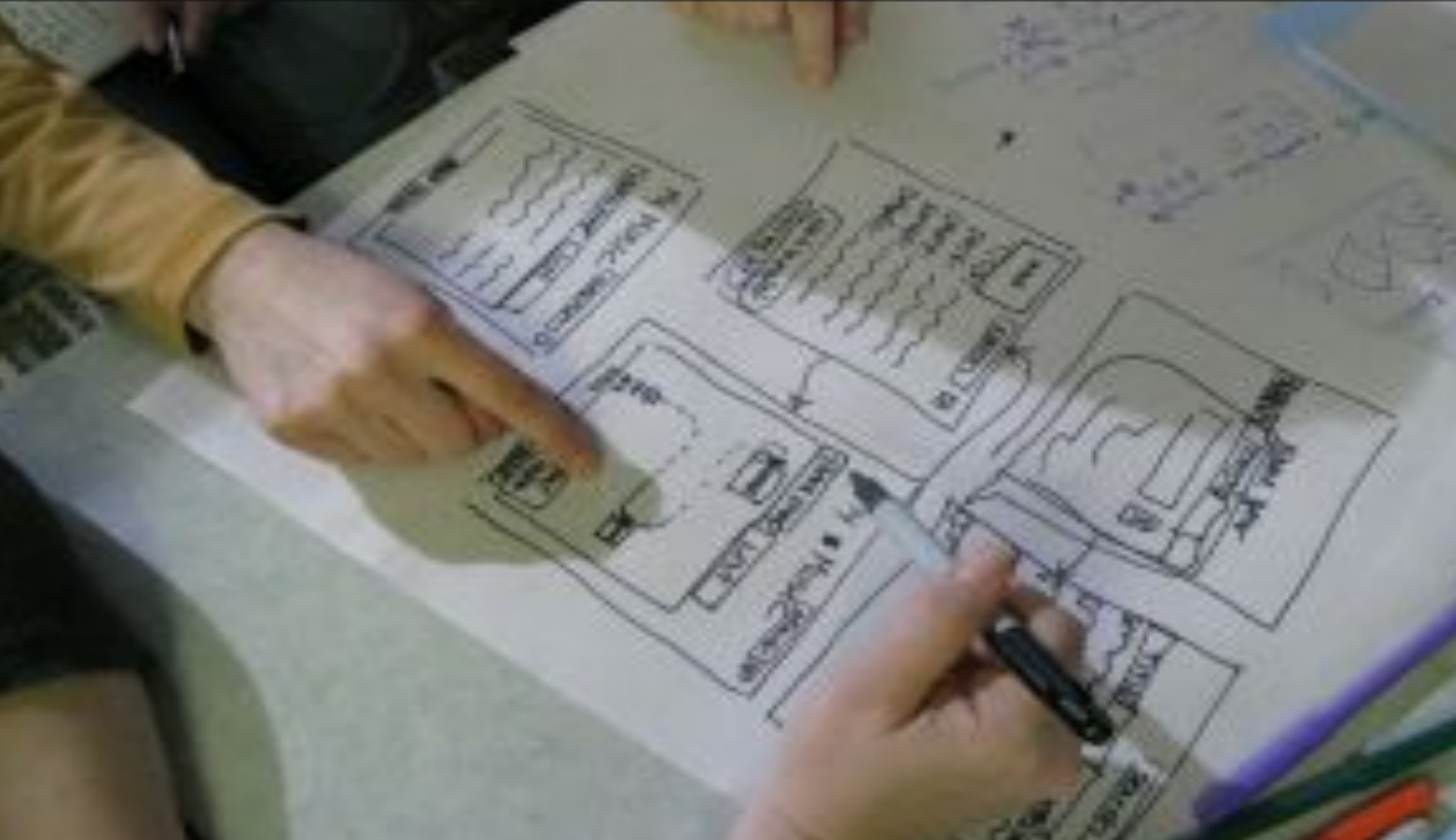
Talking with end users over a story map drives discussion they can engage in



Story maps put problems and solutions into context



Words aren't enough



Everyone participates in sketching
solution idea



Take a little quiet time and sketch independently



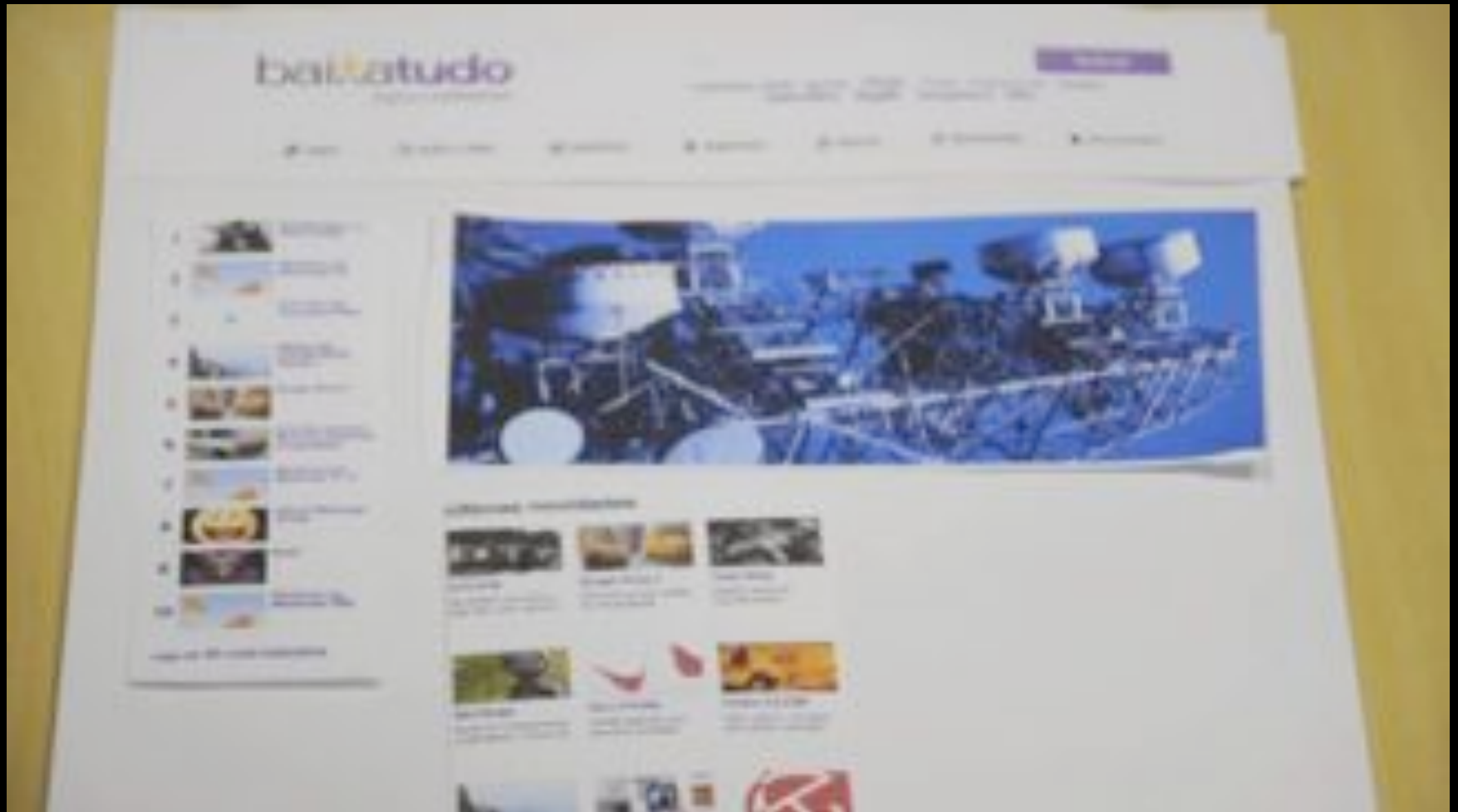
Share back ideas with the everyone



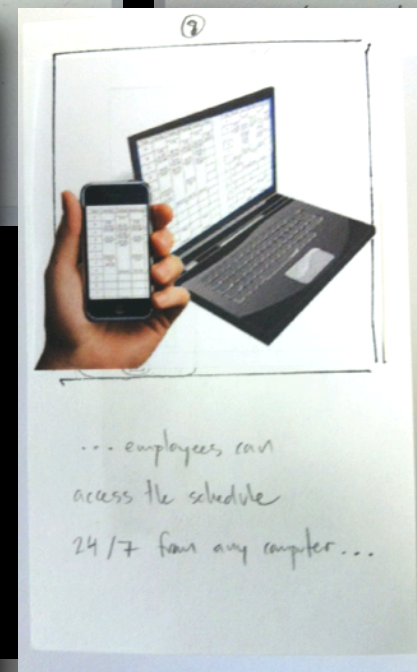
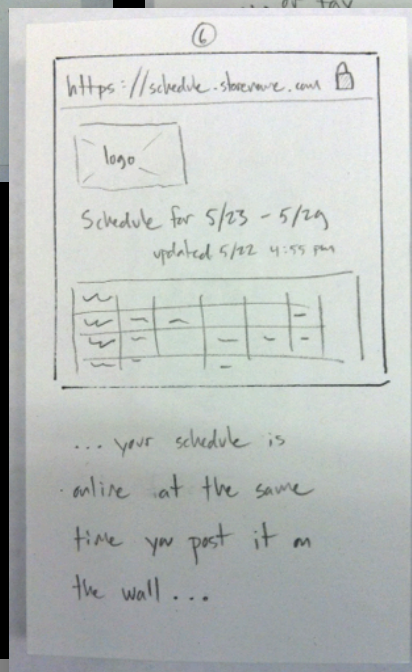
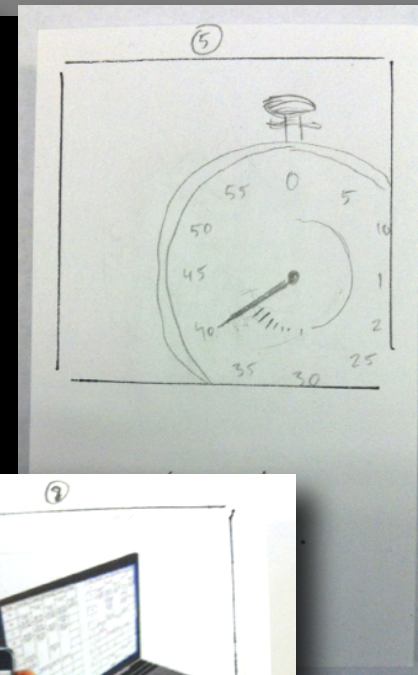
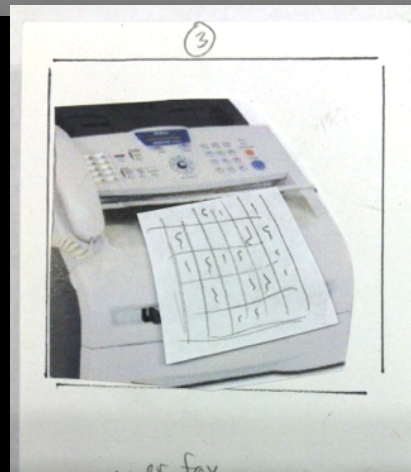
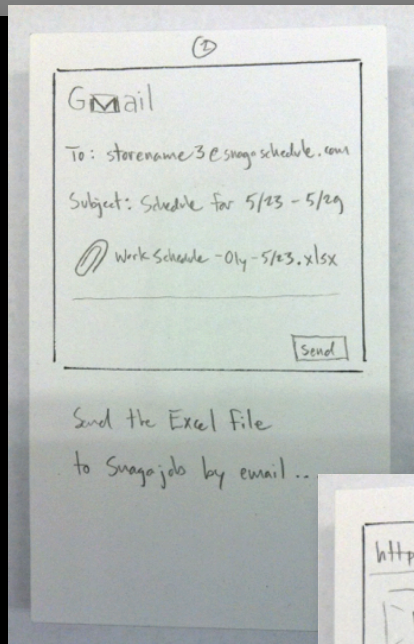
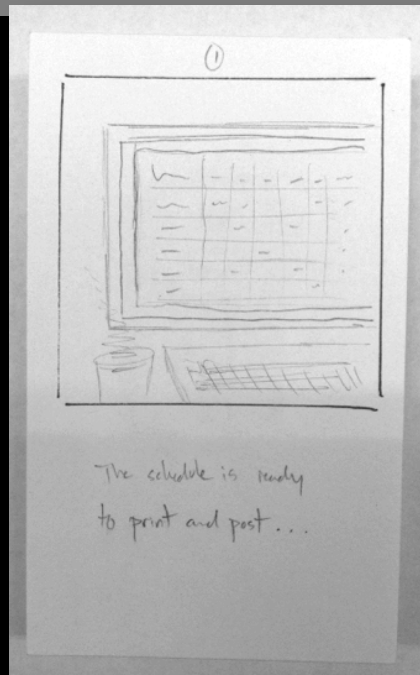
Words and pictures help everyone build shared understanding



Globo.com doesn't stop with words



Use storyboards to imagine user experience “later”



Snag-a-Job lo-fi storyboard

Don't just imagine experience, test it



Tell your product's story over and over



Edmunds shares the product's story for all teams in an internal "trade show"



Edmunds shares the product's story for all teams in an internal "trade show"



Edmunds shares the product's story for all teams in an internal "trade show"



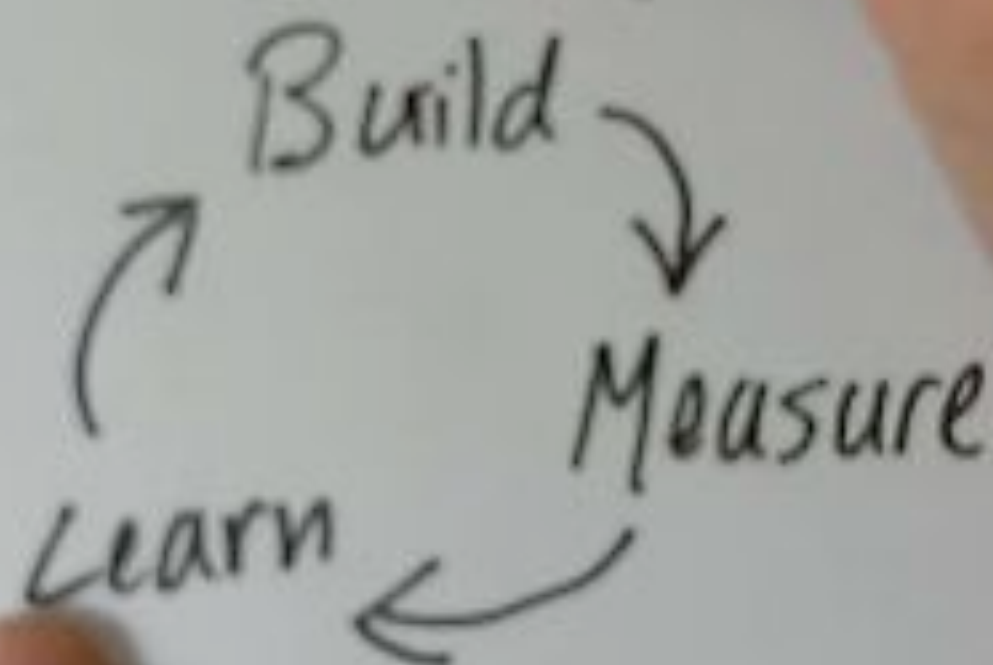
Edmunds shares the product's story for all teams in an internal "trade show"



MVP = minimal
viable
product

1. Smallest viable product
for a target market

Lean Startup Cycle



Lean Startup's

MVP₂ = minimal
viable
product

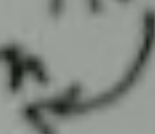
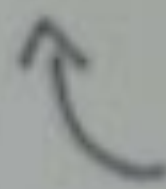
[experiment]
2. Smallest viable experiment
to validate a product concept

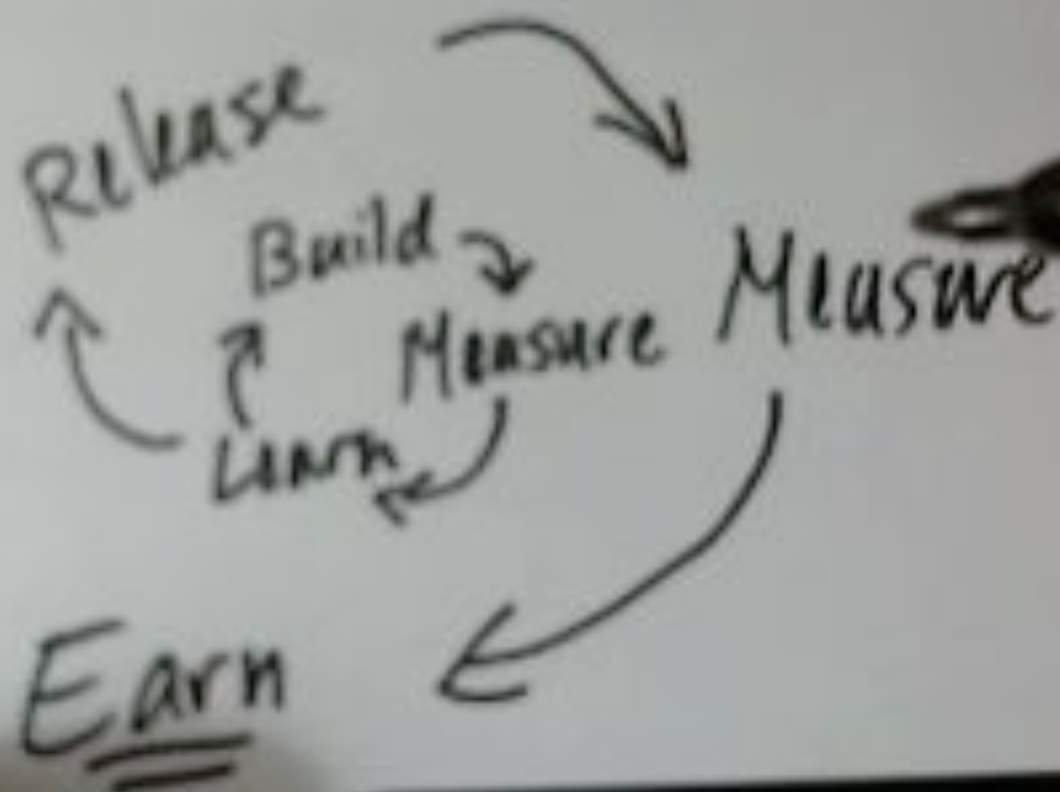
Release

Build →

Measure

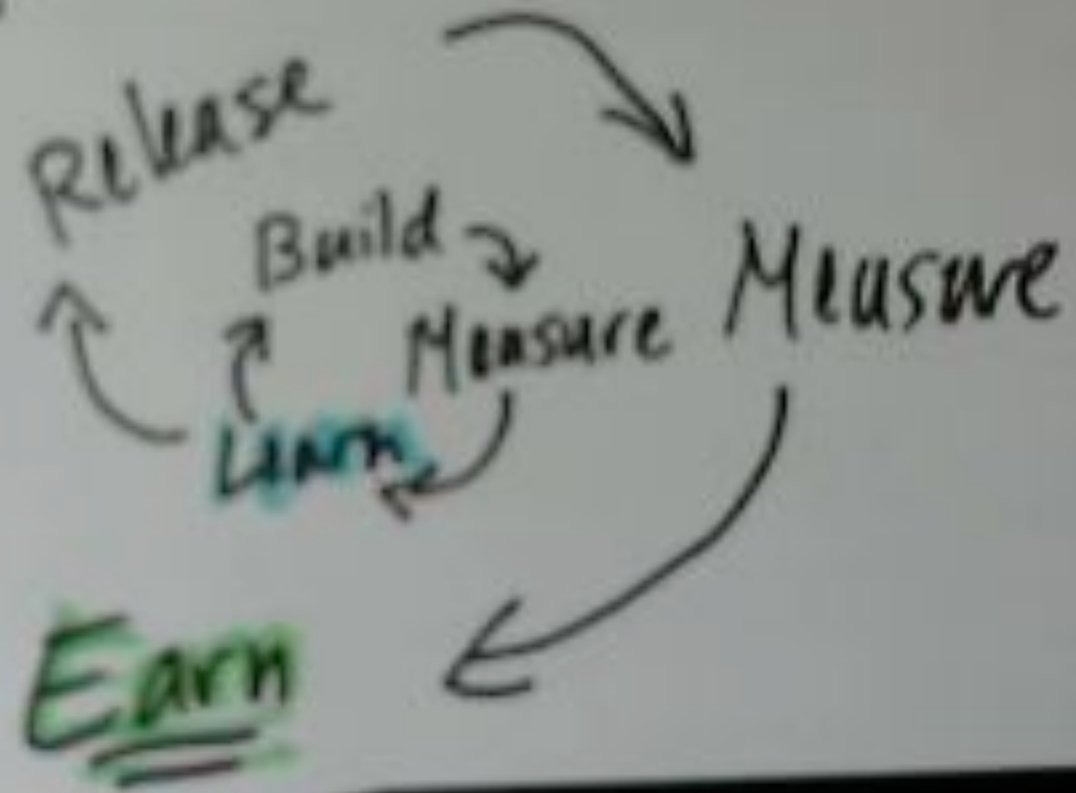
Learn

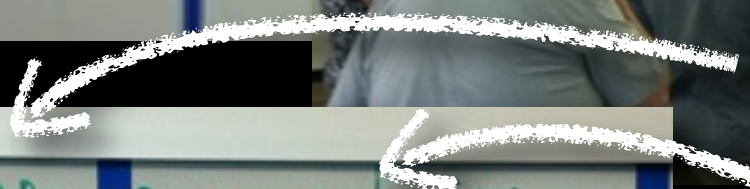
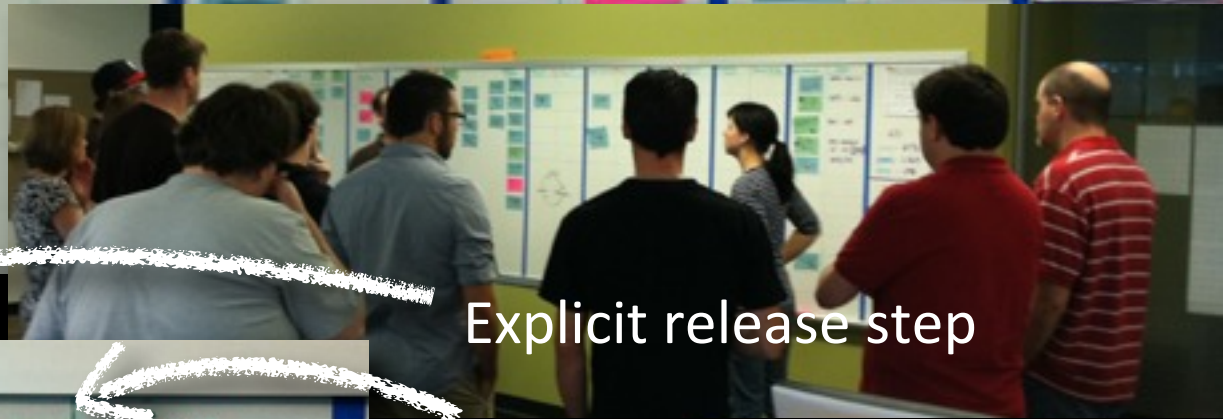
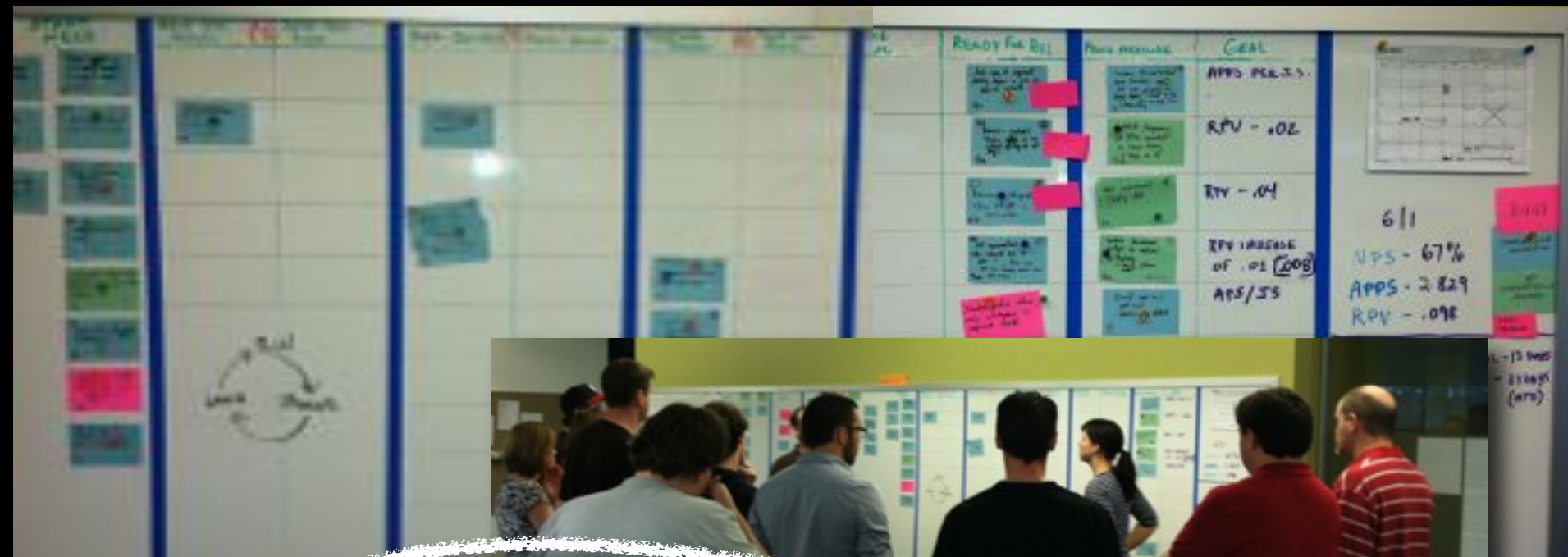




LS Loop Inside the Market Value

Loop





Explicit release step

Explicit measure step & metrics

Nothing leaves the board until there's been a discussion on what we've learned



Snag-a-Job's board courtesy of David Bittenbender

Nordstrom Innovation Lab's Learning Loop



<http://www.startuplessonslearned.com/2011/10/case-study-nordstrom-innovation-lab.html>

Nordstrom Innovation Lab's Learning Loop



<http://www.startuplessonslearned.com/2011/10/case-study-nordstrom-innovation-lab.html>

Nordstrom Innovation Lab's Learning Loop



<http://www.startuplessonslearned.com/2011/10/case-study-nordstrom-innovation-lab.html>

Nordstrom Innovation Lab's Learning Loop



<http://www.startuplessonslearned.com/2011/10/case-study-nordstrom-innovation-lab.html>

5

Reality bites



Your guesses about the future are probably wrong

Typically about 50% to 80% of all software we ship fails to accomplish it's objectives.

People like Marty say this stuff is hard
(Marty Cagan, author of **Inspired**, How to Create Products Customers Love)

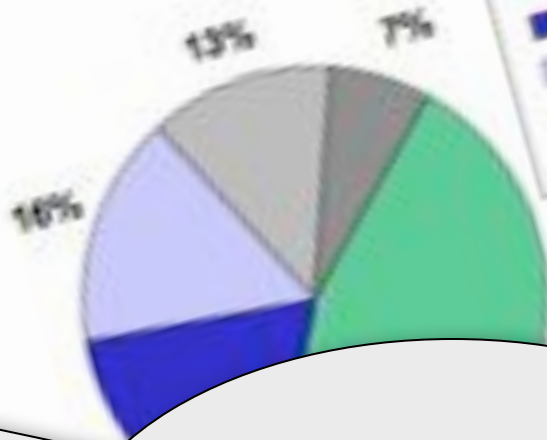
We're probably
right about 2 times out of 10



Is it as simple as building only the features people will use?

THE
STANDISH
GROUP

Features & Function Usage



- Never
- Rarely
- Sometimes
- Often
- Always



“Clippy” - Booed off the Microsoft Office stage as seldom-used and often despised.

It seemed like a good idea at the time....

It's only after delivery that we really understand value

opportunity:
integrated music
management and
portable music
player



If you think writing code is
hard, try making product
decisions



Scene from The Matrix © 1999 Warner Bros Pictures

Everyone's focused on winning now Snag-a-Job can actually keep score



snagajob.com[™]

Snagajob's been trying to crack the
same tough problem for close to a
year now

Most of Nordstrom's weekly
experiments don't result in rolling
out a new product

Edmunds.com has built, tried, and
thrown away dozens of ideas

Everyone's
working directly with our
clients now

What we're doing
really matters

We've found
simple ideas that now
generate millions in
revenue every year

When there's
problems, teams dig in, and
figure out a schedule to stay and
solve problems. No one asks
them to.

People are just
happier

The new site
generates the same revenue
with a fraction of the features
and code - and our customers
like it better

What team members
say is telling



“It’s not easy. We’ve got lots
of problems.

But there’s no going back.”



Co-Making Great Products

How whole teams work together to find problems, invent solutions, and deliver great products

Questions?

Jeff Patton
jeff@comakewith.us
twitter: @jeffpatton