

# Design Thinking

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Startup Programming Course, UVic, Fall 2016

*What is it about some products?*



# *Terminology...*

**UX(D):** User experience design for an improved experience for the user

**Interaction design:** what happens when the user clicks, taps, or swipes...

**Information architecture:** how everything in the interface should be organized

**Usability:** useful, learnable, memorable, effective, efficient, desirable, delightful...

# *What is Design Thinking?*

*“Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.”*

– Tim Brown (President and CEO of IDEO)

# *What is design?*

*“Design has to work. Art does not”*

Donald Judd

Need to balance: *“Utility and Delight”*

Bruce Mau

Robert Brunner: What all great companies know:<https://vimeo.com/104009337>

So what about your  
idea?

# *Sources of inspiration 1*

Needs to address a **specific problem:**

May automate some **repetitive tasks**  
(e.g. daily ones)

May **integrate data** from different apps

We are annoyed if we can't **do things online**  
[Krug]

# *Sources of inspiration 2*

## **Talk to people**

“if you could wave a magic wand...”, and

“tell me more...” [Nathan Barry]

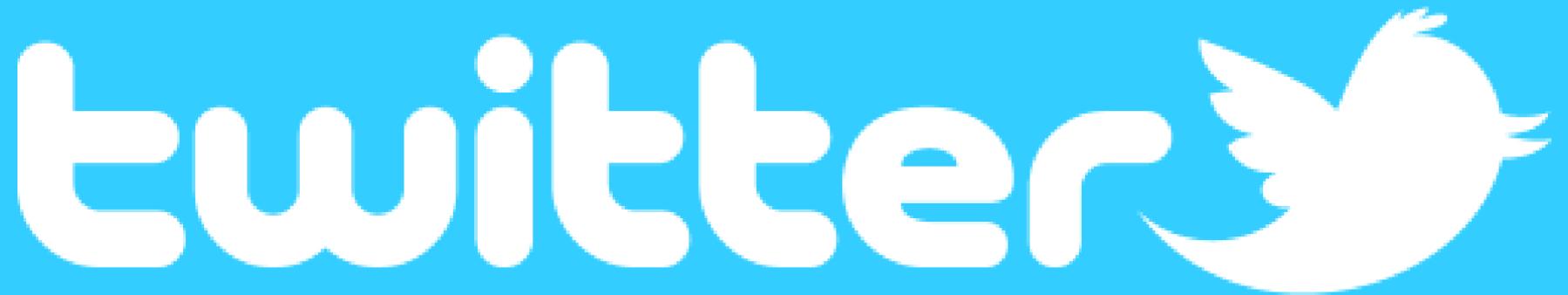
## **Solve your own problem**

“Scratch your own itch” [39signals book, Open source mantra]

*Make something nicer or better?*

*Instead ask:*

*What should we be making?*



*“Sometimes the best types of problems to solve are the ones that the users don’t really know are problems until you fix them”* [Lean UX]

# *Why ask why?*

“The curse of knowledge”

Anti-experts see the possibilities

But it can take courage to ask Why!



# *Smart Recombinations*



*Leads to...*



*Do...*

Embrace constraints

Design for emergence (growth)



# *Embrace Constraints*

Limitations may lead you to creative solutions  
[Getting Real]

*The antidote to feature blight is the  
“constricting deadline.”*  
Jef Raskin ( from Why Software Is the Way It Is)

*Simple designs lead to **emergent** behaviours*  
[Getting Real]

*Keep it small. Keep it simple. Let it happen.*  
[Andrew Hunt, The Pragmatic Programmer]

Yo

**It's that simple.**



*What is your app **not** about?*

# Web app or Website?



An app can create an account, tracks what you watch, gives you recommendations [Nathan Barry]

A **website** is defined by its **content**

An **app** is defined by its **user interactions**

[<http://stackoverflow.com/questions/8694922/whats-the-difference-between-a-web-site-and-a-web-application>]

*[shouting] PHENOMENAL COSMIC POWERS!*  
*[softly] Itty-bitty living space!*

—ROBIN WILLIAMS AS THE GENIE IN ALADDIN, COMMENTING ON THE  
UPSIDE AND DOWNSIDE OF THE GENIE LIFESTYLE



# Lean UX

# *[UX for Lean Startups]*

Lean UX is about validating hypotheses  
**(assumptions** you make)

Lean UX is **agile, data driven, iterative**

Constantly **improve features**, not add new ones

Not being afraid to **pivot**

# *Have a vision!*

What is your app's **Tagline**? [Getting Real]

Some examples from 37signals:

Basecamp: *Project management is communication*

Backpack: *Bring life's loose ends together*

Campfire: *Group chat over IM sucks*

Ta-da List: *Competing with a post-it note*

Writeboard: *Word is overkill*

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**to let app developers spend their time on code**



to help people write better code, faster

*How to begin?*

# *Begin Anywhere*

Don't wait to be an expert...

Your process can enable experimentation

The sooner you get your ideas out “there”, the sooner you get feedback



# *What do you need to start?*

1. An **opinion** about what the **future** looks like
2. The **technological trends** you want to bet on
3. An idea of **change** you want to make in the world

Des Traynor, [intercom.io](#)



Des Traynor, [intercom.io](https://intercom.io)



Des Traynor, [intercom.io](#)

# *Minimal viable product*

*“It’s a cupcake, not a half-baked  
bowl of ingredients”*  
[UX for Lean Startups]



# *Minimal viable product*

Helps you to “validate your ideas” with the least amount of effort

Series of experiments that will help you learn  
“Fail early, fail often”

Help you find out:

*Who may use it?*

*What kind of language do they use?*

*Will they pay for it?*

# *Types of MVP?*

Fake doors



Concierge MVP



FRI · JAN 22

# A Minimum Viable Product Is Not a Product, It's a Process

Yevgeniy (Jim) Brikman

<http://themacro.com/articles/2016/01/minimum-viable-product-process/>

*How to prioritize features?*

"It's amazing that the amount of news that happens in the world every day always just exactly fits the newspaper."

*Jerry Seinfeld*





*A small list of target users beats  
a big list of non-customers*

[Des Trainer, [intercom.io](#)]



Mainstream users

Willing adopters

Experts

# *Prioritizing features*

Rather than crossing out features, **circle**  
the ones you really want [Nathan Barry]

Think in terms of users' goals, not features

Where can you have the most impact?

What is the core value?

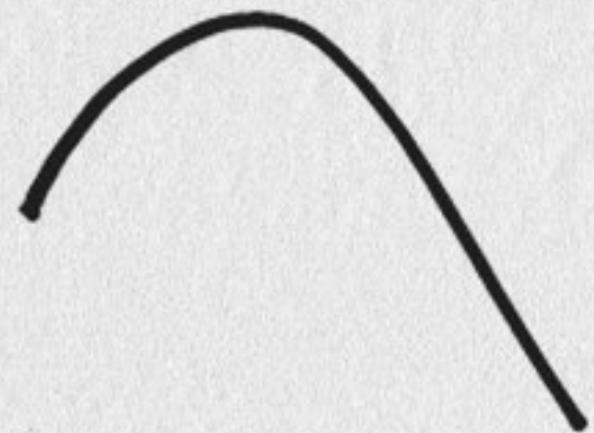
What is essential? What is needed everyday?

Beware: “*But what if the user wants it?*”

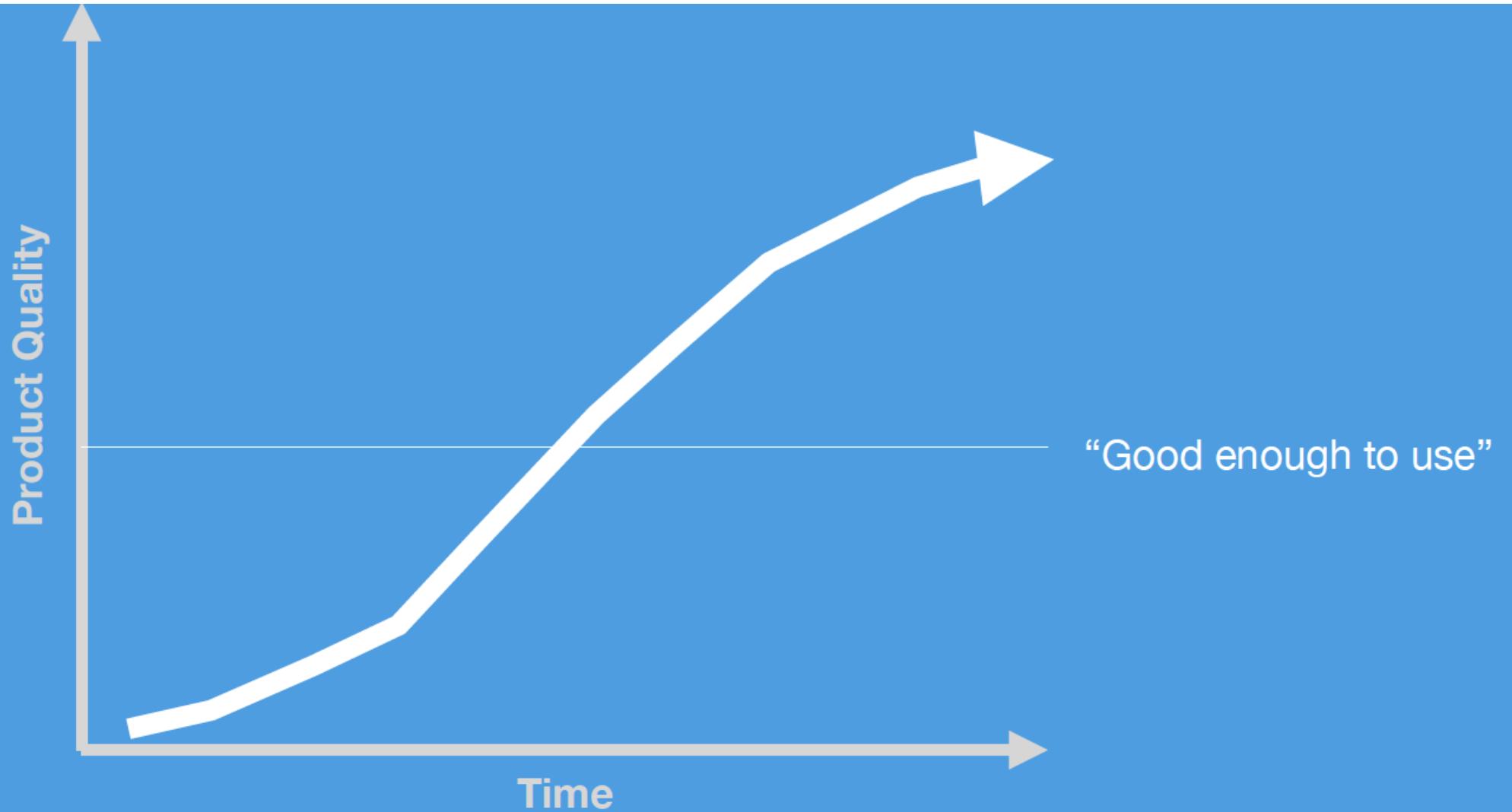
**“what is” NOT “what if”**

*Fewer choices, higher satisfaction...*

CHANCE  
OF GETTING  
ANYTHING  
DONE



# OF CHOICES



**Your beta users are your best source of knowing if you're ready**

Des Traynor, [intercom.io](#)

# *Design Thinking Toolbox*

# *Sketching*

Fast, freeform exploration of many ideas

Critical for innovation and conversations

*“Delivers the necessary information at the point of decision, not too early and not too late”*

(Bill Buxton)

# *Brainstorming*

*“No one is as smart as all of us.”*

**Getting Real, 37Signals Book:**

# *Designing with others*

Paper and pencil

Wireframes

Come up with multiple designs

"Everybody knows the problem: We need to be more innovative. Now we've got the solution: *Gamestorming*. This smart, fun, hands-on book will energize your brain and mobilize your creativity—and do it using stuff you already have in your supply closet!"

—Daniel H. Pink, author of *Drive* and *A Whole New Mind*

# Game storming

A Playbook for Innovators,  
Rulebreakers, and Changemakers



O'REILLY®

Dave Gray  
Sunni Brown  
James Macanufo

# *Prototyping as a form of play*

*Your first design may seem like a solution but...*

Don't just aim for good (it may be limiting)

Study, study, study

Imitate (connect old ideas in new ways)

Slow down

Allow events to change you

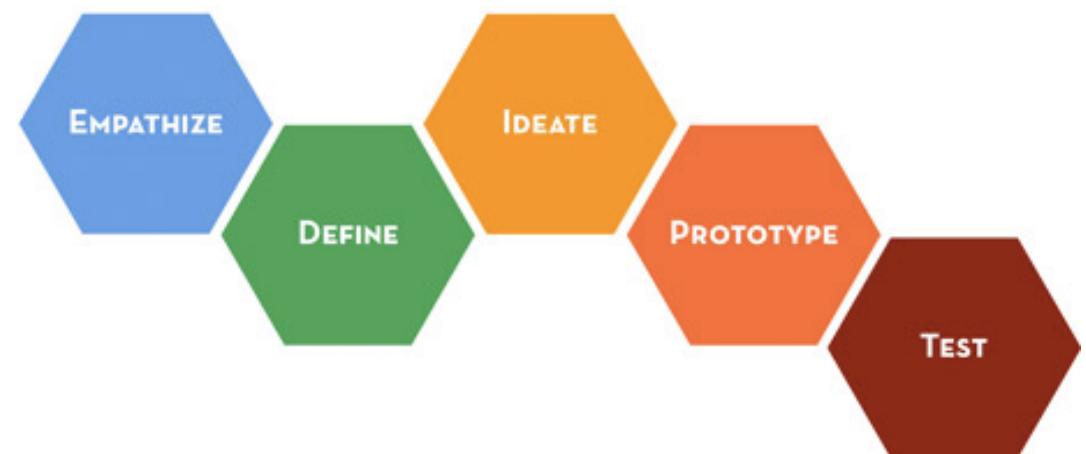
# *Have an iterative process*

Empathize

Synthesize (i.e. Frame)

Ideate / Brainstorm

Prototype / Evaluate



# *Some Important Tips*

Write **stories**

Develop **personas** you believe in

What is your product's **personality** [Getting Real]



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DON NORMAN'S  
**3 Levels of Design Appeal**



# 3 Levels of Design



Branding & positioning,  
long-term relationships,  
self-image:

**who** a user wants to  
**be**

Usability, expectations:  
**what** a user wants to  
**do**

Sensorial qualities (look,  
sound, feel):  
**how** a user wants to  
**feel**

# *Know your real competitors*

Who does Uber compete with?

Who does Skype compete with?

Who does Netflix compete with?

Why will users **switch** from existing product to  
your solution?

What will **stop** them from switching to your  
solution?

# Takeaways...

# *Your approach....*

Design -> Prototype -> Code -> Design...

Instead of a 12 week project, think of it as 12  
weeklong projects [Getting Real]

Don't split into silos [Getting Real]

*Want to know more?*

# *Learn more!*

Resources on course website

Study other web apps!

Study your competition



HASSO PLATTNER

Institute of Design at Stanford

## d.school Mindset:

Show, Don't tell

Focus on Human Values

Craft Clarity

Embrace Experimentation

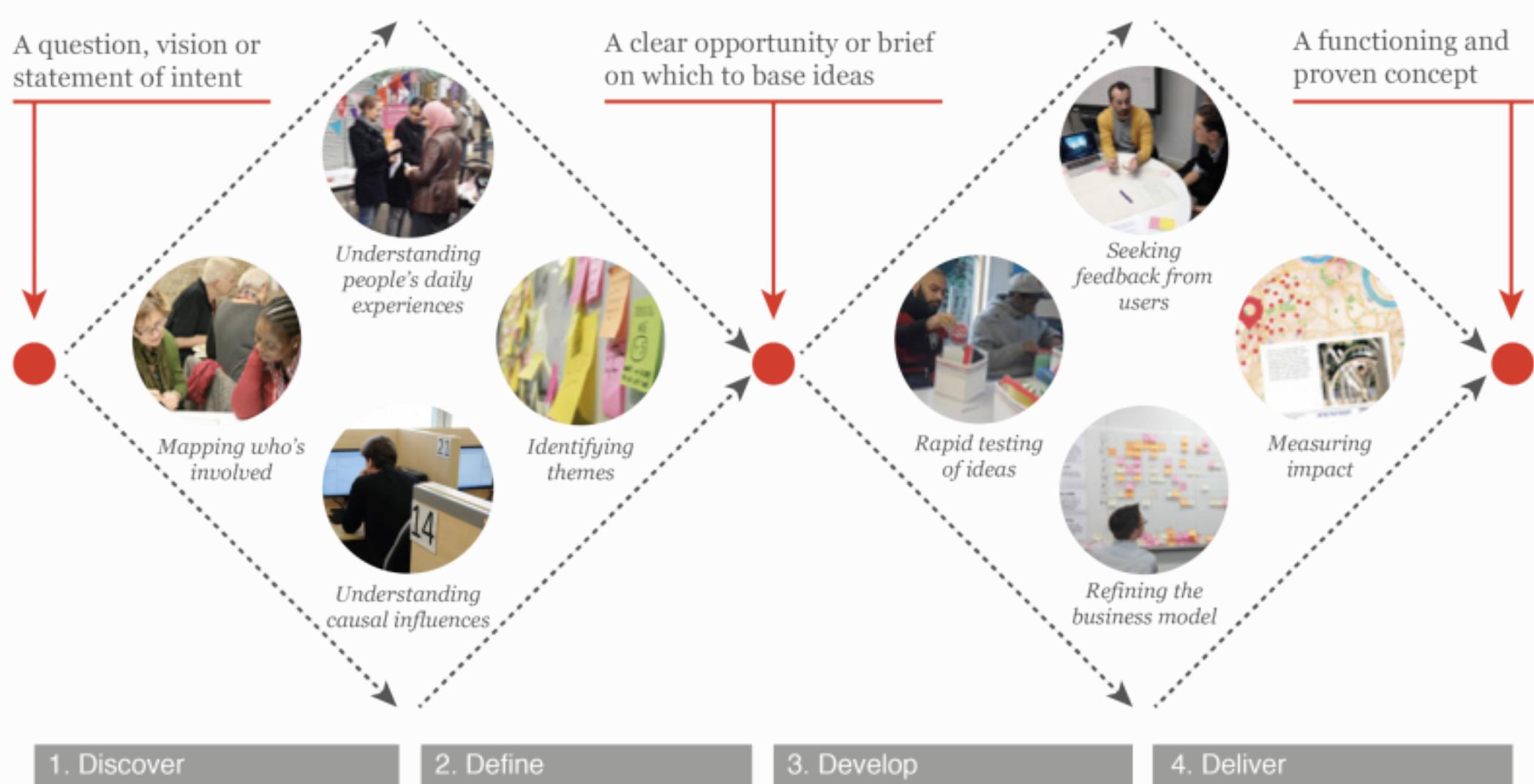
Be Mindful of Process

Bias toward Action

Radical Collaboration

<http://dschool.stanford.edu/>

## What and Why



## How

# Examples of web apps

<http://www.developer.com/design/top-10-design-tips-for-web-apps.html>

<http://designmodo.com/web-application-interface/>

<http://www.webbyawards.com/winners/2014/web/website-features-and-design/best-visual-design-aesthetic>

<http://www.webbyawards.com/winners/2014/web/website-features-and-design/best-visual-design-function/vimeo>

<http://www.webdesign-inspiration.com/web-designs/type/mobile-app>

<http://www.html5rocks.com/webappfieldguide/know-your-apps/intro/>

# References

- [Krug]** Don't Make Me Think, Revisited: A Common Sense Approach to Web Usability (3rd Edition) (Voices That Matter) by Steve Krug
- [Lean UX]** UX for Lean Startups: Faster, Smarter User Experience Research and Design\* by Laura Klein
- [Nathan Barry]** Designing Web Applications\*  
(<http://nathanbarry.com/webapps/>)
- [Getting real]** A book from 37Signals (<https://gettingreal.37signals.com>)



WARREN BERGER  
**GLIMMER**  
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HOW DESIGN  
CAN TRANSFORM  
YOUR WORLD



VINTAGE CANADA



## VALIDATING PRODUCT IDEAS

Through Lean User Research

by **TOMER SHARON** Foreword by Benjamin Gadbow

 Rosenfeld

THE NEW YORK TIMES BESTSELLER

# THE LEAN STARTUP

How Today's Entrepreneurs Use  
Continuous Innovation to Create  
Radically Successful Businesses

ERIC RIES

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