

Innovation at Google

...plus a manifesto

Patrick Copeland

copeland@google.com

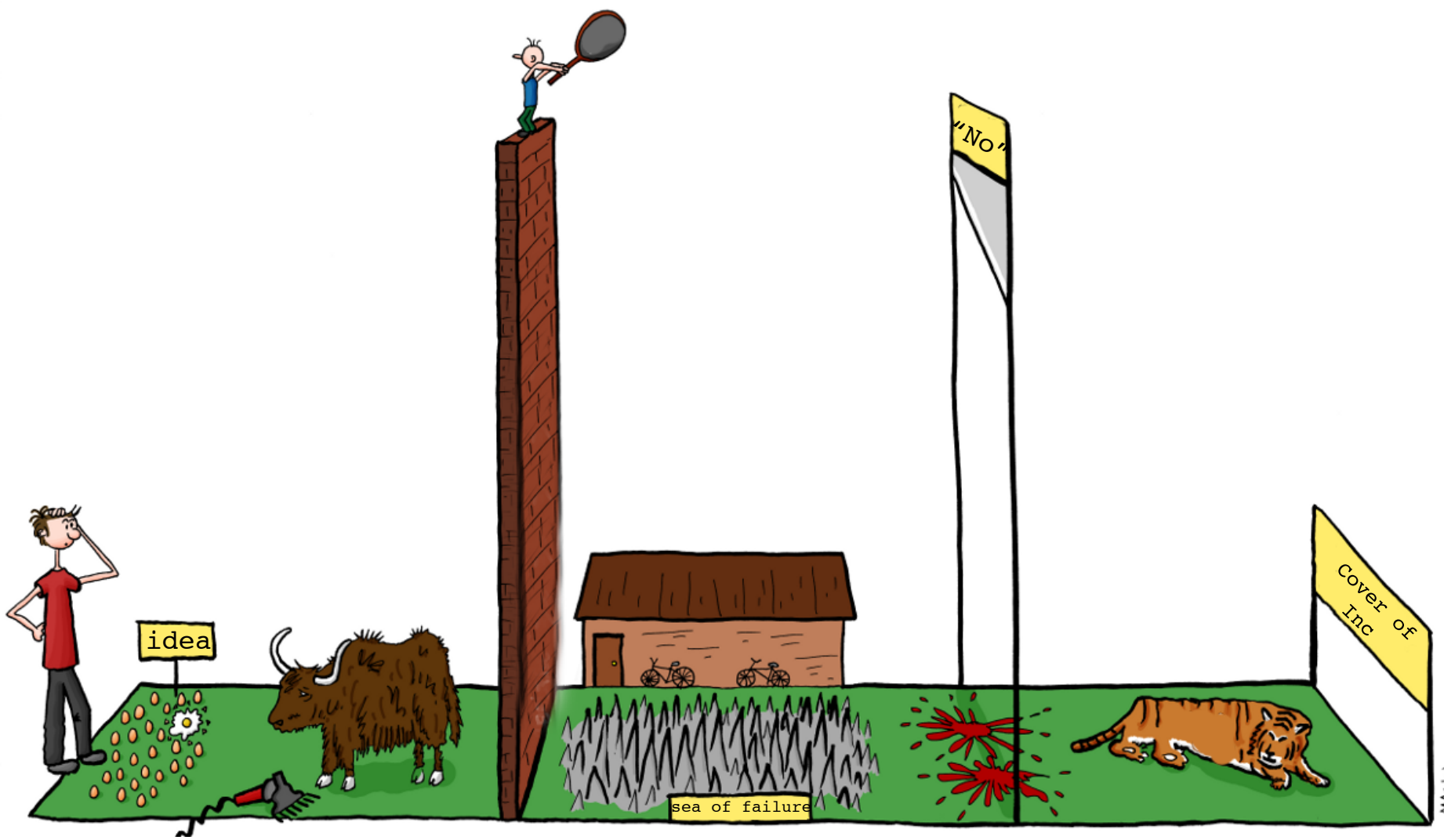
[twitter: copelandpatrick](#)

[**#gotocph**](#)

[**#pretotyping**](#)

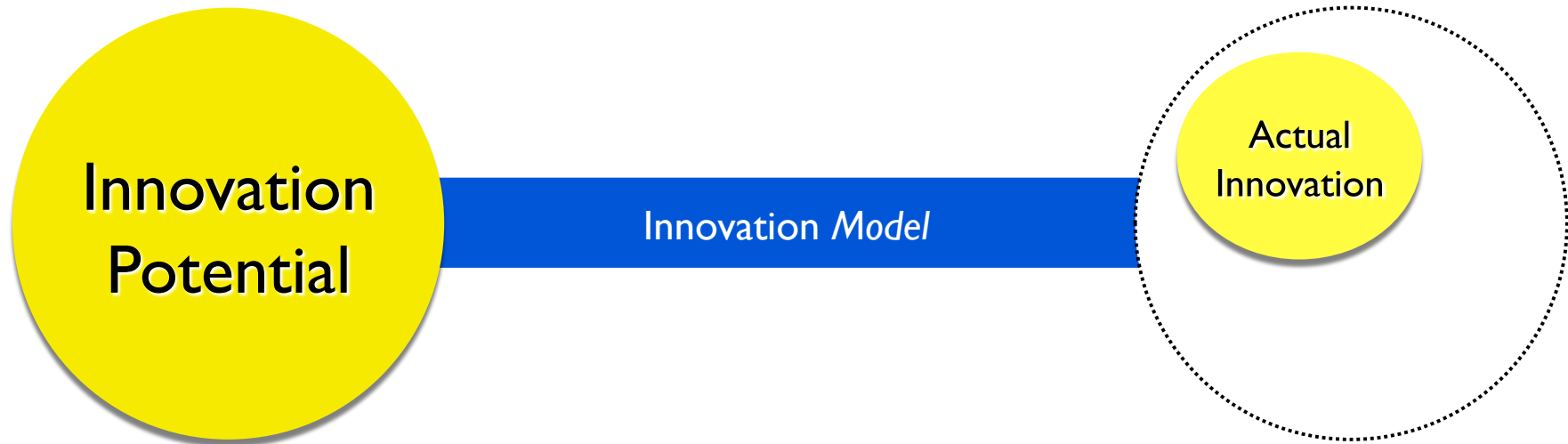
[**#thoughtland**](#)

[**#buildrightit**](#)



MANU

Lost In Translation

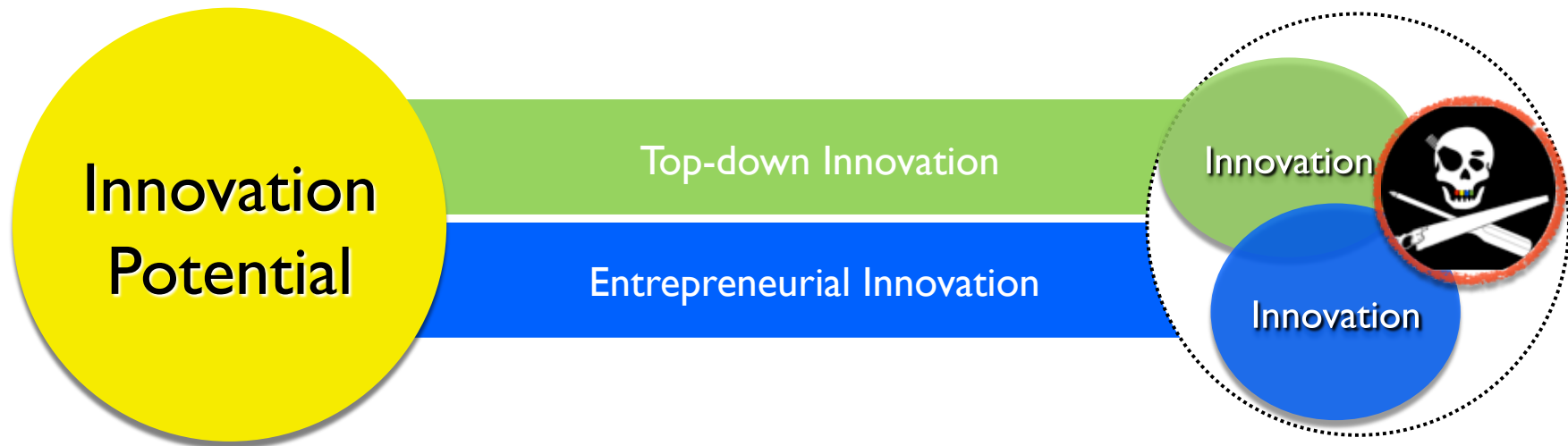


Top-down Innovation

1. Create a Research Lab
2. Hire a bunch of PhDs
3. Ideas: few, big & from the *top*
4. Close and secretive environment and results
5. Formal research proposals
6. Papers, patents, ..., products

Entrepreneurial Innovation

1. Create an innovation *culture*
2. Use *all* employees
3. Ideas: lots from everywhere
4. Open and shared environment and results
5. Informal proposals – if that
6. Prototypes, products, ..., papers



More on this:

IEEE's Computer Magazine, April 2011

the innovation odds

X% of all new Y fail ...

... even if they are very well implemented

**Build the
right 'it'**

vs.

**Build 'it'
right**

the pretotyping manifesto

innovators beat ideas

pretotypes beat productypes

data beats opinions

doing beats talking

simple beats complex

now beats later

commitment beats committees

<http://pretotyping.org>

innovators
beat
ideas



Ideas, ideas, ideas ..

*"We need some innovative **ideas!**"*

*"Where's the next billion dollar **idea?**"*

*"I have an **idea** that will change the world!"*

**\$ value of
ideas?**

Buy My Ideas

I am no Steve
Jobs, but I
dress like
him...

Patrick's 5B DKK idea



Bidding starts at 5,000 DKK

Price is for idea only. There is no explicit or implicit offer of help to implement the idea. The idea may not be implemented in a cost-effective way – possibly not at all. The seller of the idea *believes* that the idea is a good one, but cannot guarantee its success. Since we don't know all the ideas that have been thought, the originality of this idea cannot be guaranteed; it's very possible that other people have had this idea. This idea is non-returnable and the sale is final. No credit or refunds will be issued.

[SF bay area craigslist](#) > [san francisco](#) > [resume](#) > [resumes / job wanted](#)

Ideator for hire. \$10 per idea. (pacific heights)

Date: 2010-04-03, 10:19AM PDT

[Reply To This Post](#)

People are always telling me I have fantastic business ideas. Some of them have been turned into VC-funded companies and I have already 3 patents to my name.

In the past I've worked hard to turn ideas into products, but now I just want to focus on generating ideas.

For just \$10/idea I will provide you with new business ideas. You can even tell me what type of ideas you want.

Here are some of the categories where I already have some great ideas:

- iPod or iPad applications
- Games (electronic or board)
- Electronic devices and Gizmos (the next iPad or iPod, electronic guitar, virtual pets)
- Collector items (things similar to Beanie Babies, Pez dispensers, etc.)
- Marketing or advertising ideas.
- Many more

\$10/idea is my introductory pricing. After that, I will probably raise my prices to \$20/idea.

If you need some fresh ideas, I am the man for you.

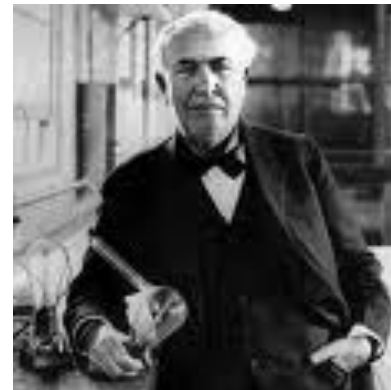
If you are interested, please send me an email with a phone number.

- it's ok to contact this poster if you are a potential employer or other principal
- Principals only. Recruiters, please don't contact this job seeker.
- it's NOT ok to contact this poster with services or other commercial interests



Edison and the lightbulb

What's the big deal?



- Idea: use electricity to make light
- Idea: electricity to cause incandescence
- Idea: vacuum + bulb to prevent burning



1%

99%

$$\frac{\text{\# of innovators}}{\text{\# of ideas}} \cong 0$$



Another **huge** problem
with ideas ...

Opinion

Idea

Opinion

Opinion

Welcome to
Thoughtland
Pop. ∞

Thoughtland

Where every idea can be a winner!

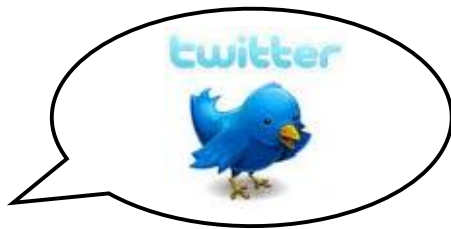
False Positive



Thoughtland

Where every idea can be ~~lost!~~

False Negative



Thoughtland

Where every idea needs to fit in!

Group Think





??????



SALE
50% off

Great idea from Patrick



Now only
2,500 DKK

Bidding starts at ~~5,000~~ DKK

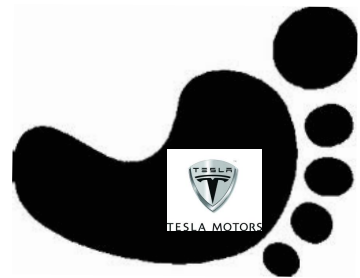
If you want innovation,
don't look for ideas
(lightbulbs),

look for innovators
(Thomas Edisons).

How Do You Find Innovators?



Spot the Innovator



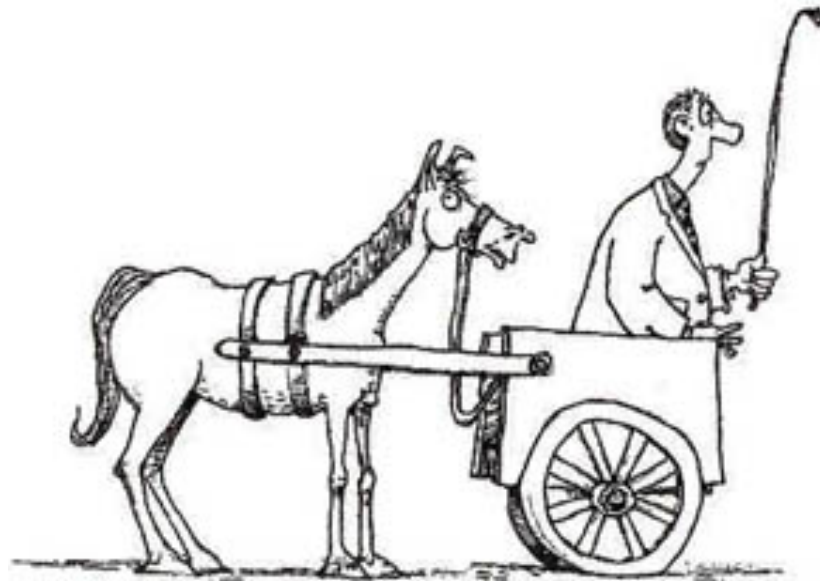
pretotypes
beat
productypes



The Innovator's Nightmare

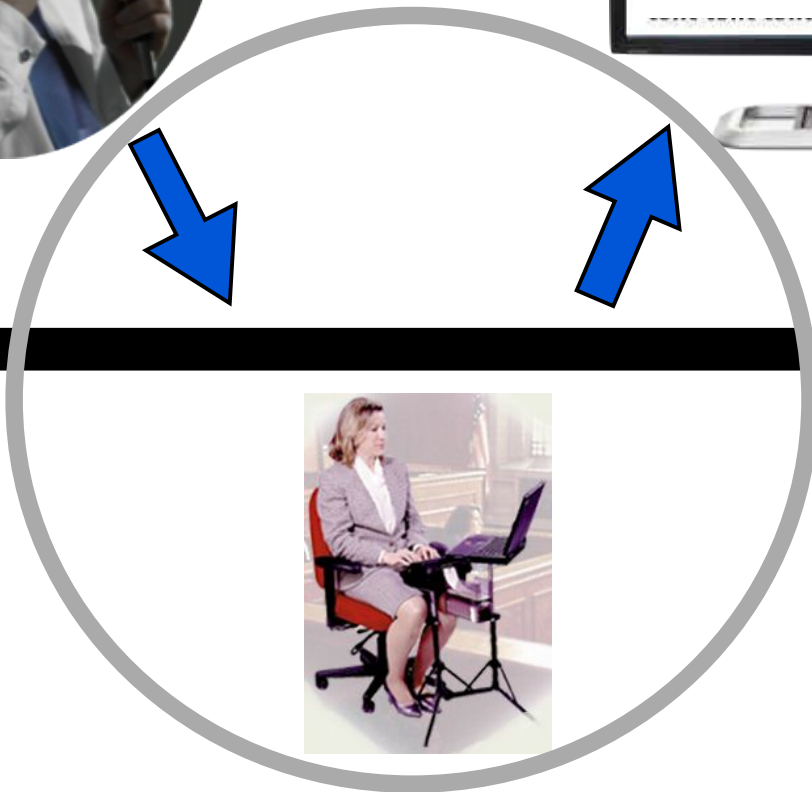
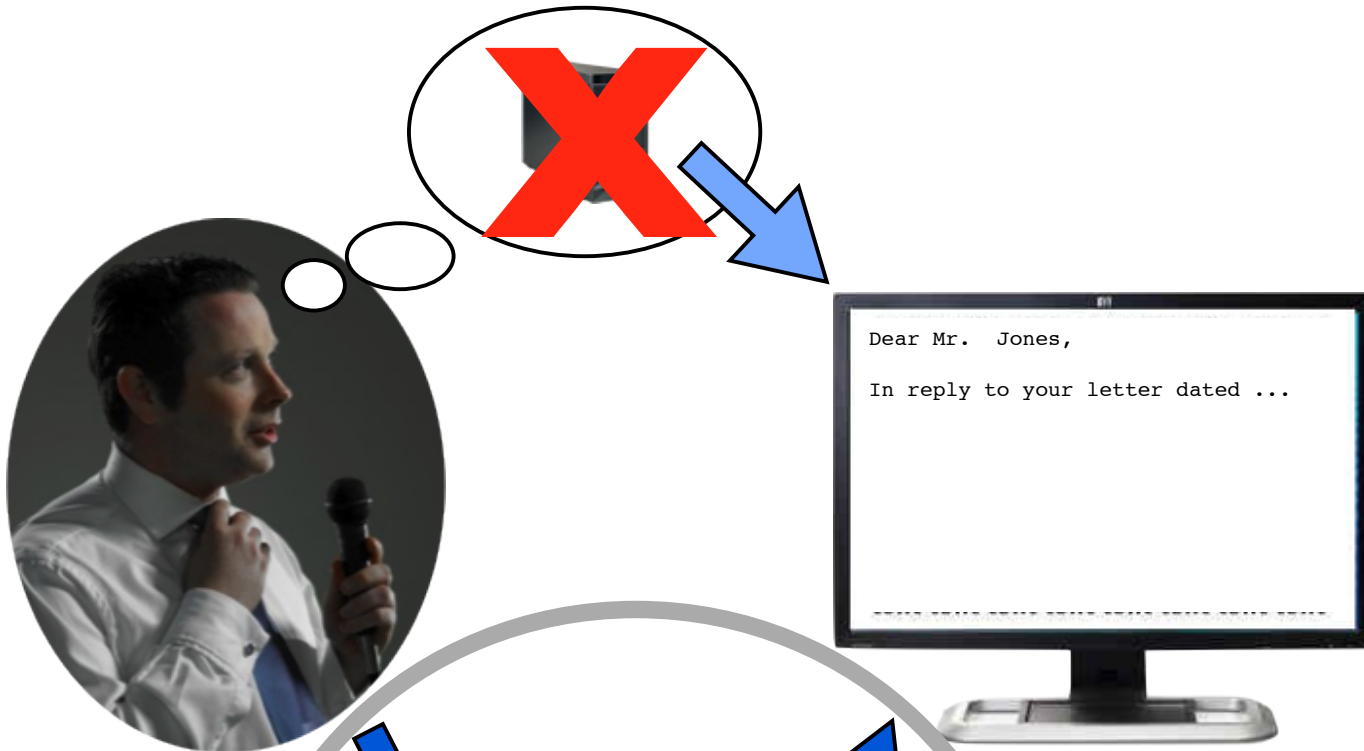
Spending years and millions,
to build and perfect
a product or service
that people don't need
or want.

**Building the right "it" vs.
Building "it" right**



IBM & Speech-to-Text Technology



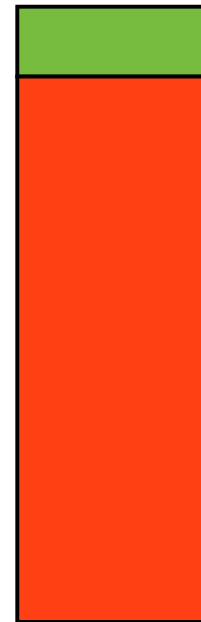


Pretendotype
Pretotype

“We love the *idea* of speech-to-text
and we’ll pay big \$ for it
if you can built *it* right.”



Before
pretotype
tests

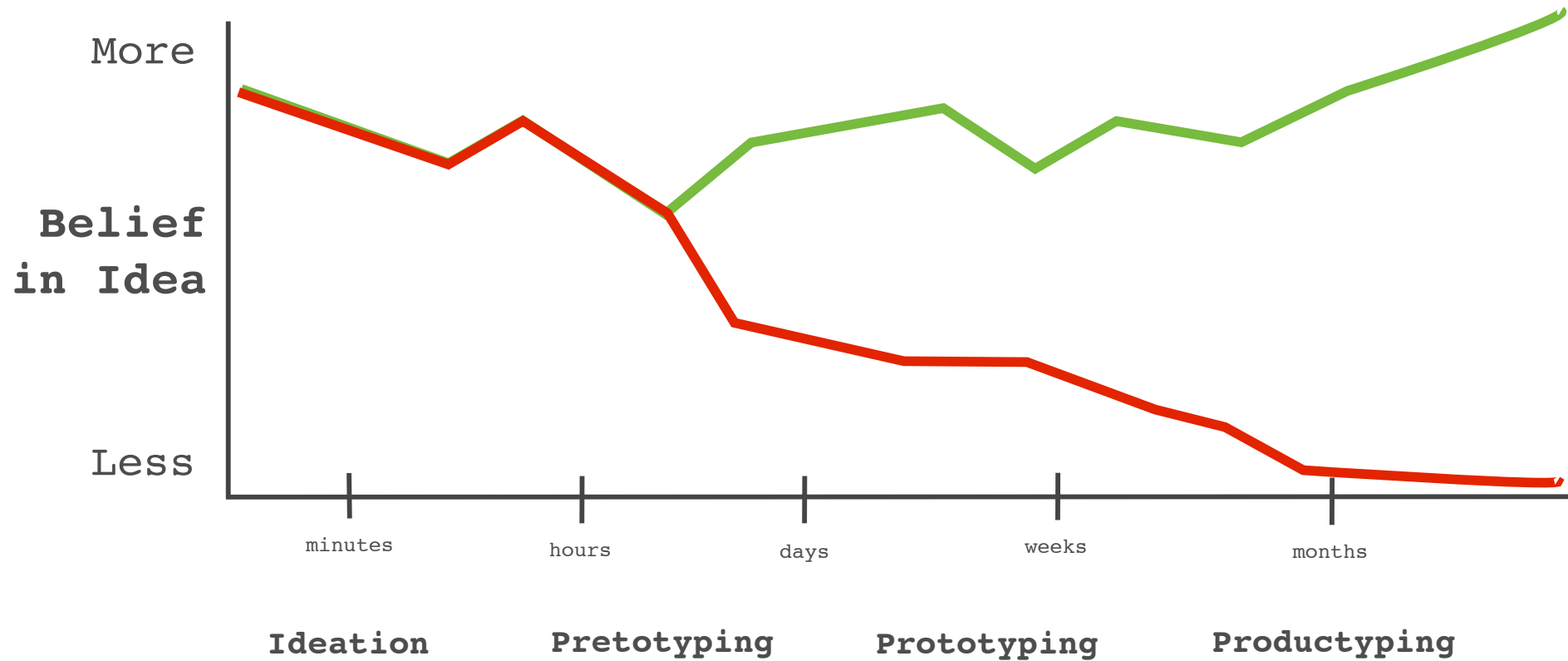


After
pretotype
tests

The Original Palm "Pre"



Testing Your Belief

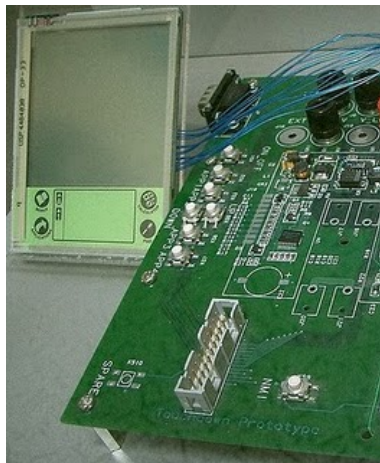


Pretotyping

Fake it before you make it

Prototyping

- **Investment:** days, weeks
- **Q:** Can we build it?
- **Deliver:** Working prototype



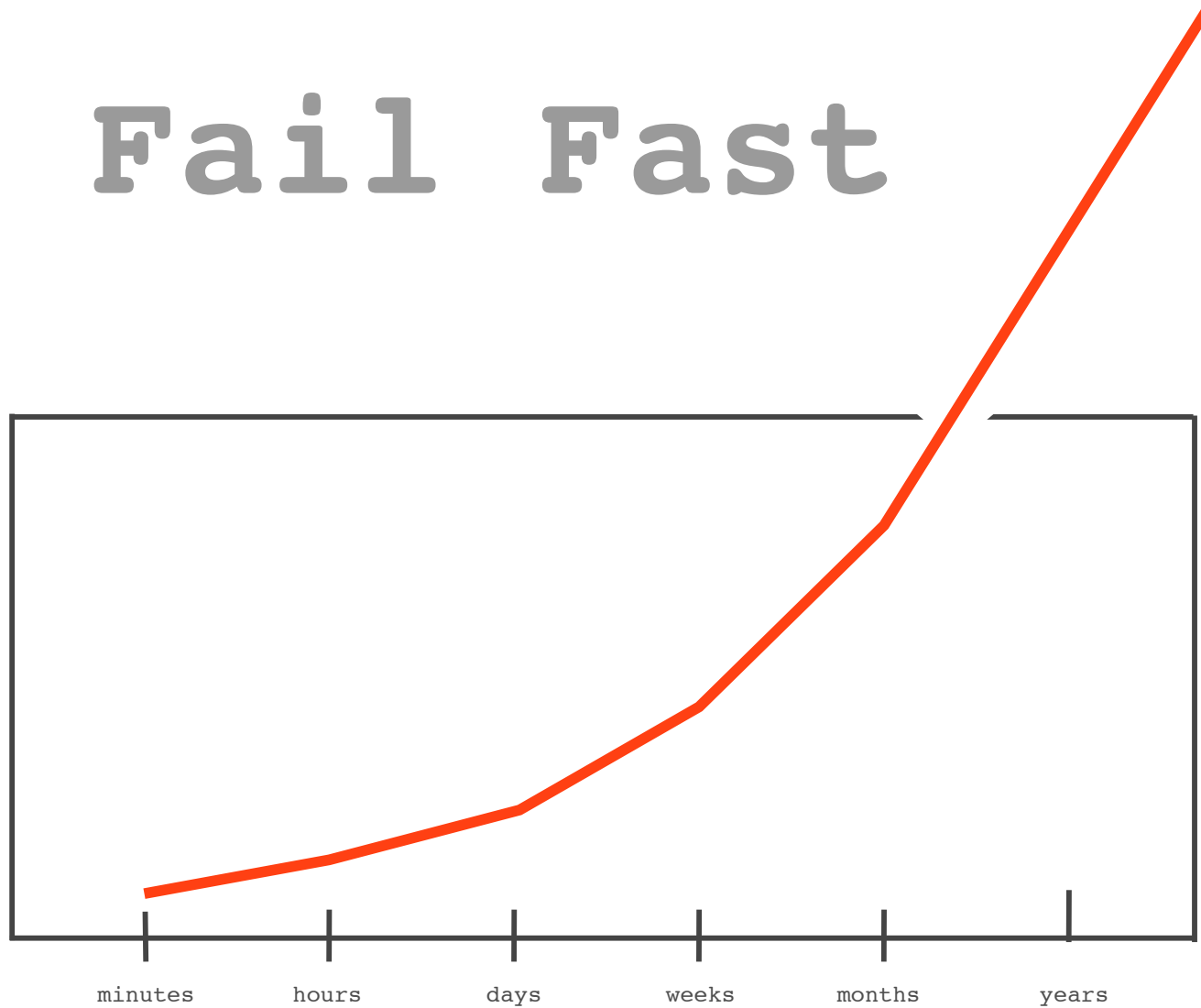
Pretotyping

- **Investment:** hours, days
- **Q:** Would we use it?
- **Deliver:** Working pretotype



Fail Fast

Compulsion to
keep going
at all costs



Time Invested

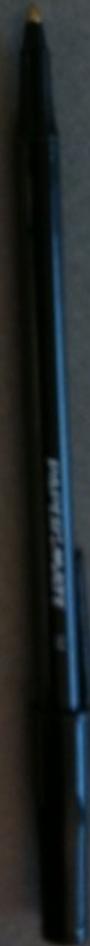
Exercise

Create your own innovative
Android app

paper-pretotypes

5 minutes

ANDROID
PRETOTYPING
KIT V.2.1.



PARK-JERK

DATE

TIME

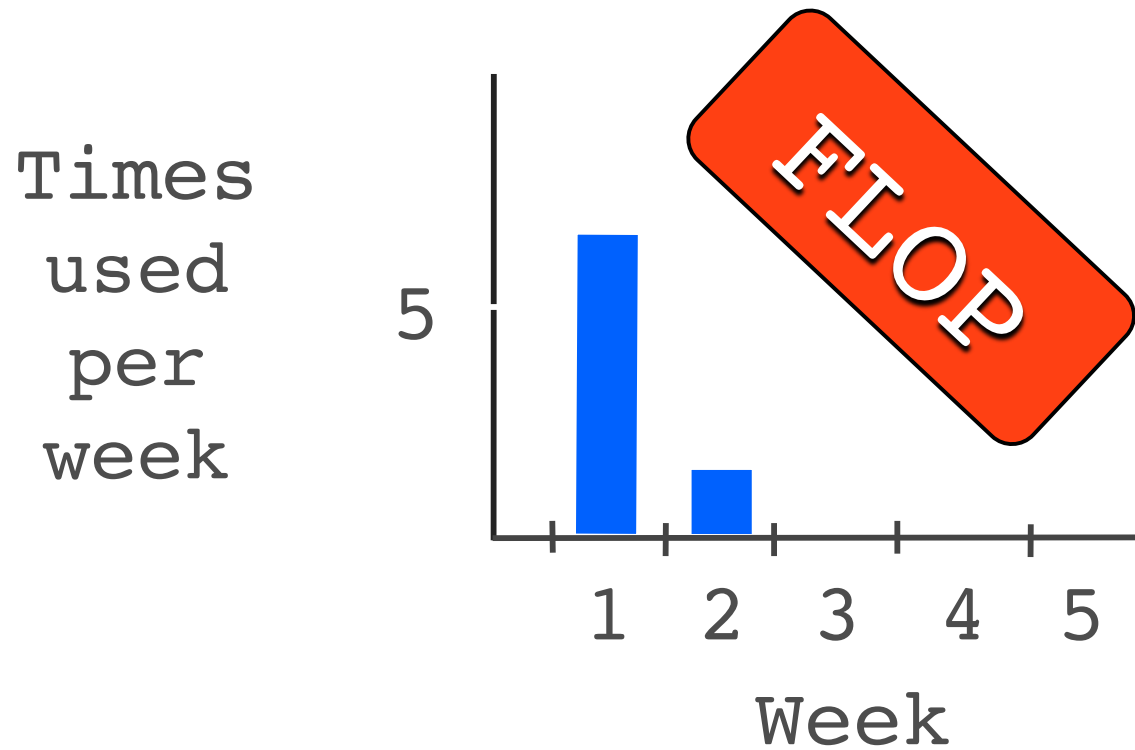
LOC.

CHOOSE OFFENSE



LICENSE PHOTO

Park-Jerk Pretotype



**“We are not retreating
— we are advancing in
another direction.”**

Oliver P. Smith

😊 GOOD GOOGLE DAY

☹ BAD GOOGLE DAY

I HAD A GOOD,
FUN, PRODUCTIVE DAY



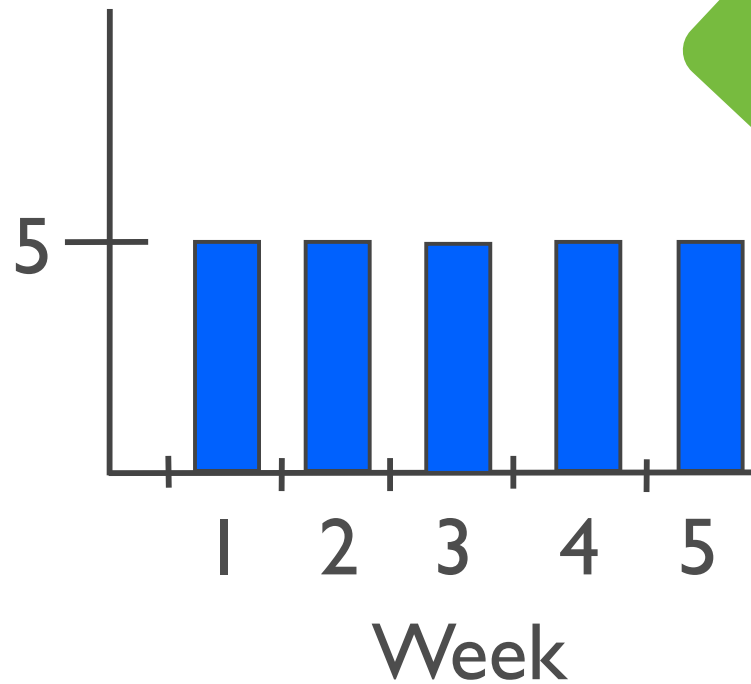
I HAD A BAD,
BORING, UNPRODUCTIVE DAY



SEND

"Good Day" Pretotype

Times
used
per
week





Make sure you are
building the right thing
before you invest a lot in
building it right.

data
beats
opinions



Are you on the right track?

(i.e. building the right 'it')

Credibility

Usage data

High

Pretotype
Prototype

Med

Idea

Low

HIT or FLOP

F.L.O.P.

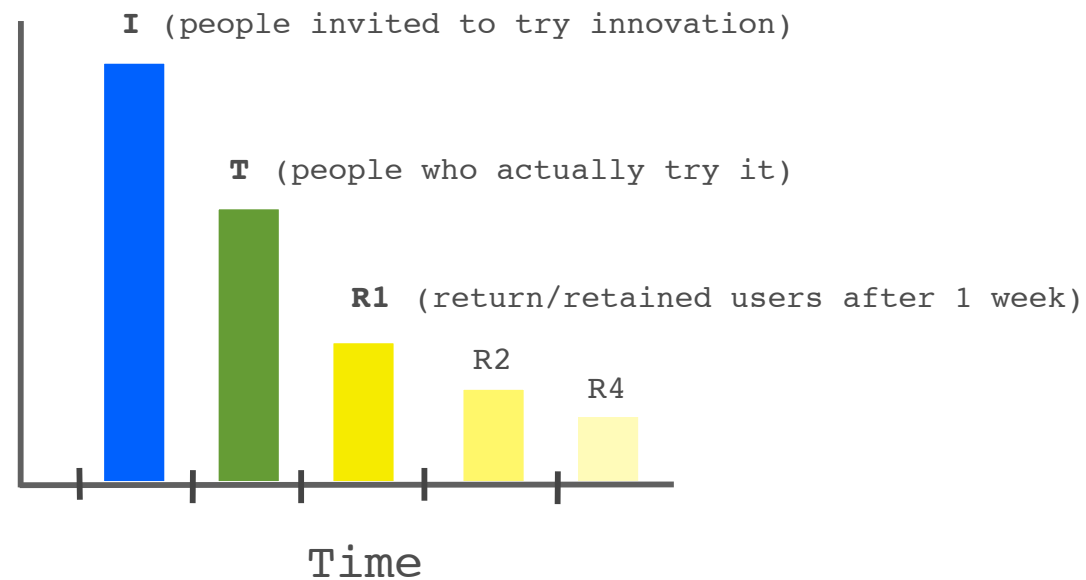
Failure in

Launch

Operations or

Premise

HIT or FLOP

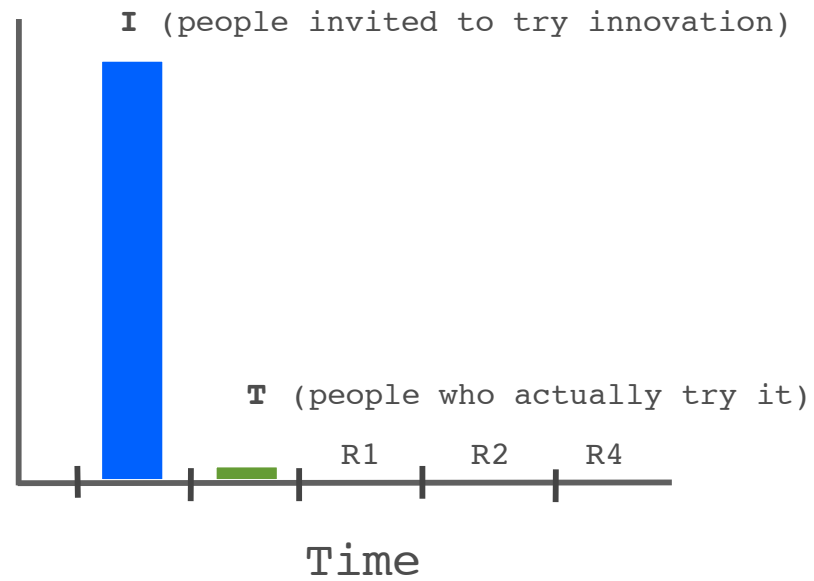


$T / I = \% \text{ of tried} / \text{invited}$

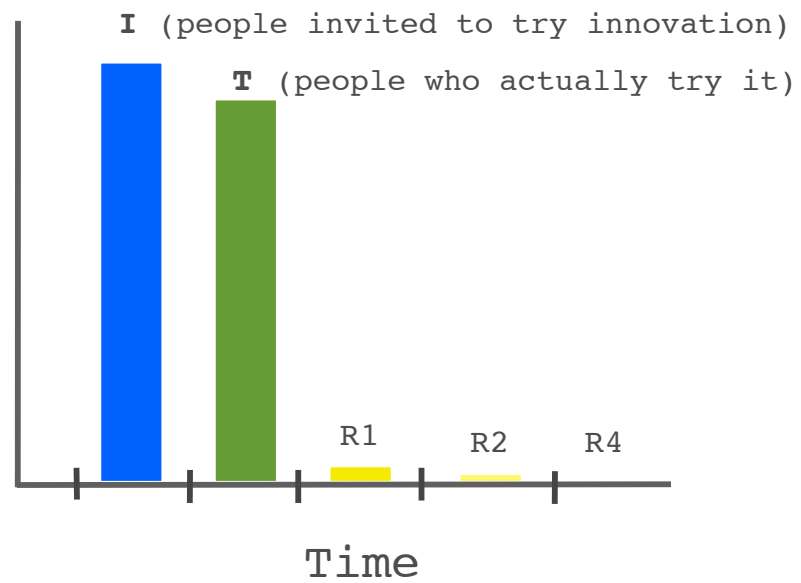
$R_n / T = \% \text{ of return user after } n \text{ weeks}$

$R_{n+1} / R_n = \% \text{ of returning users loss over time}$

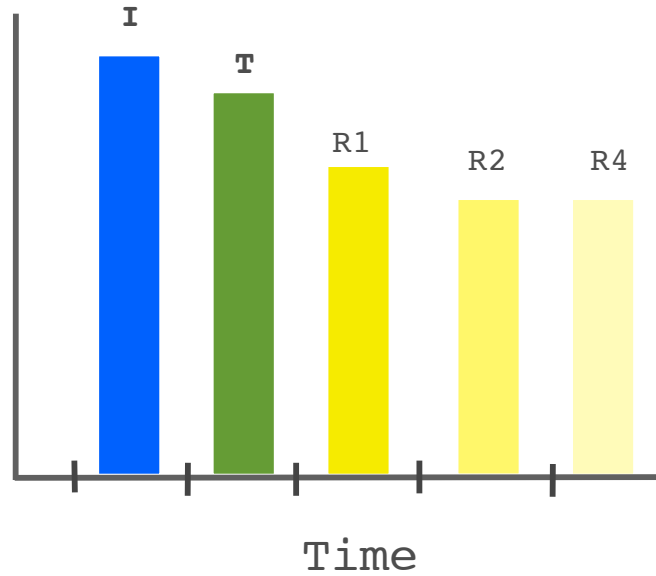
FLOP



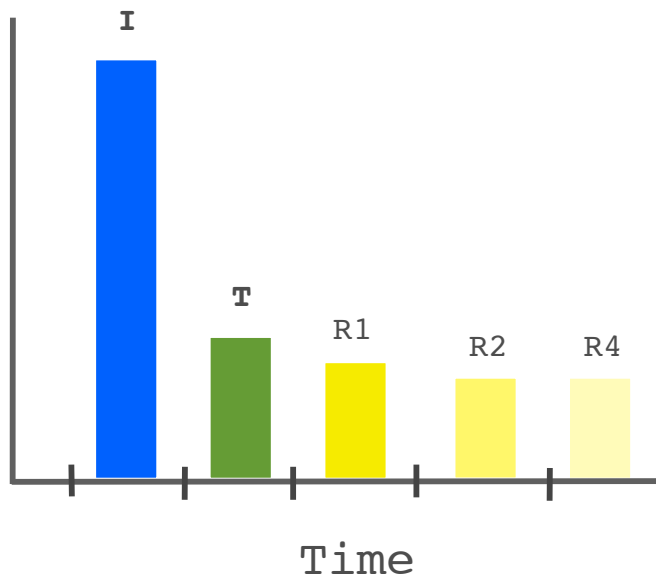
FLOP



Huge HIT



HIT



Ditch on both sides of the road

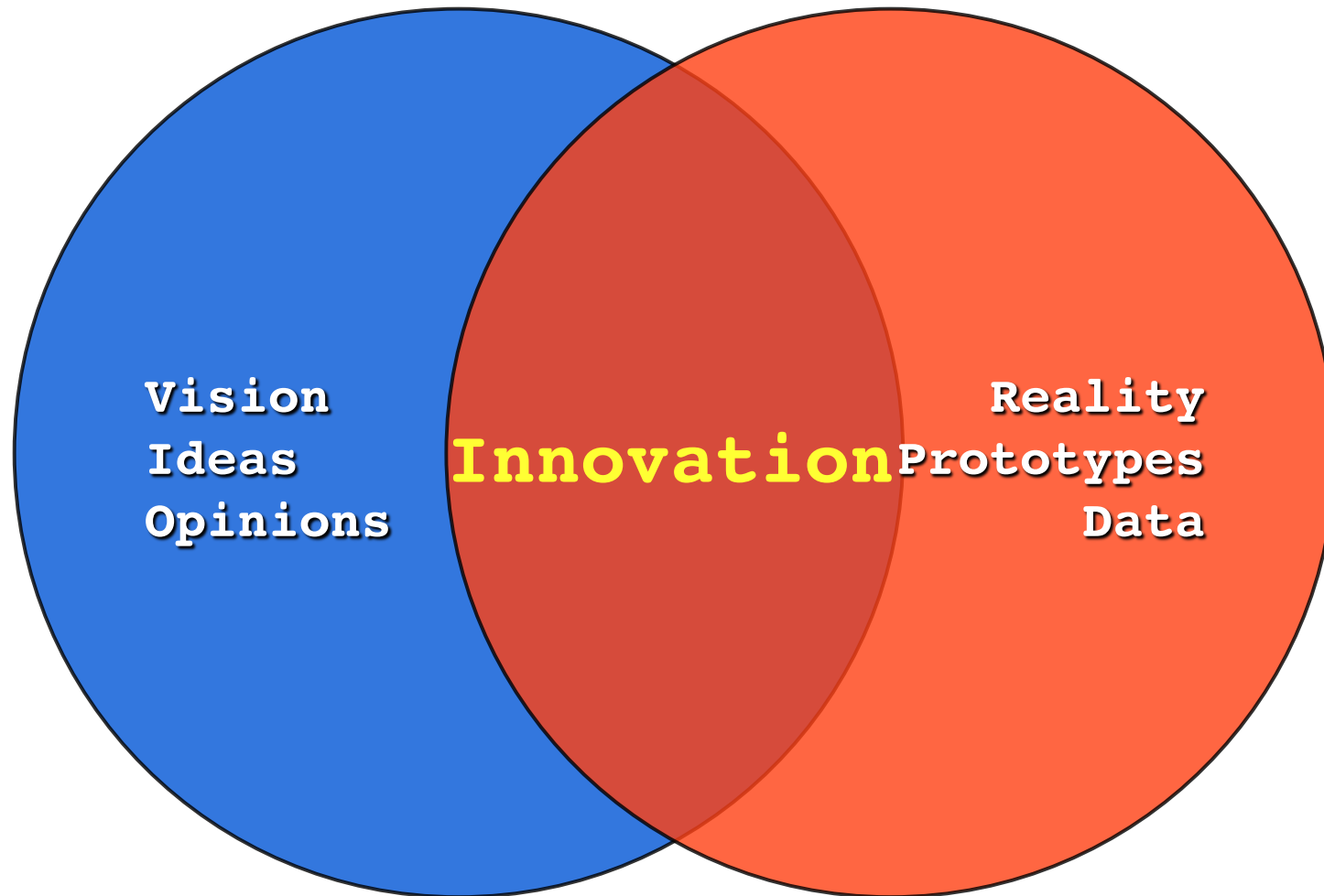
That's
dumbest/best
idea I've
ever heard



Let's test
500 shades
of blue



Vision vs. Hallucination



Ok, ok, but can anyone do
this? At any stage? In any
market condition?

Clone Wars

Then: Mainframe vs PC clones

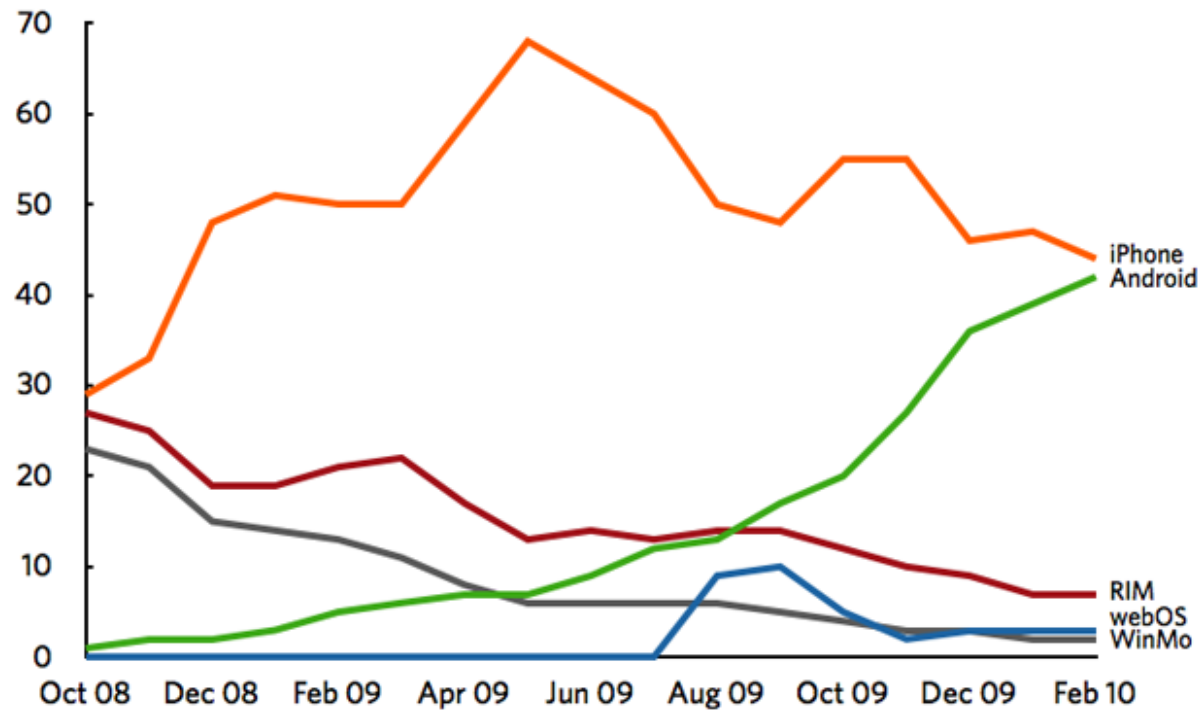


Clone Wars

Now: Android

Mobile OS Traffic Share: US

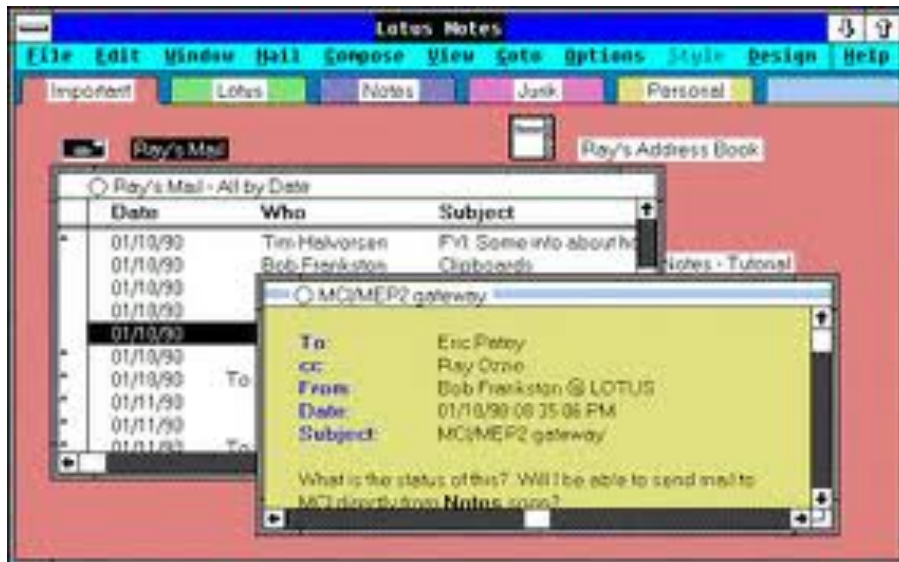
Percent



Source: Admob

Fast Following

Then: Lotus Notes vs Office

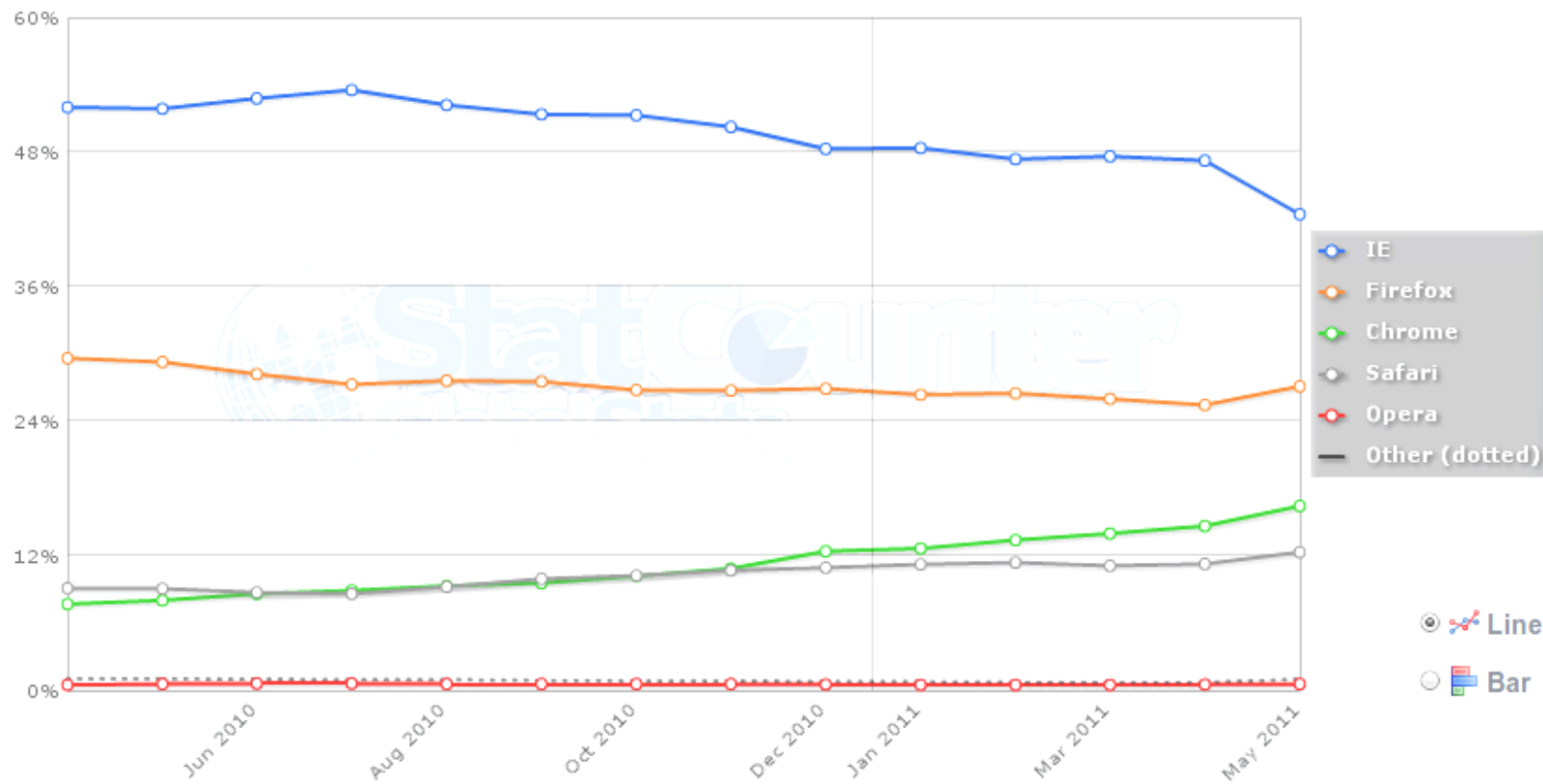


Fast Following

Now: Chrome

StatCounter Global Stats

Top 5 Browsers in the United States from Apr 10 to May 11



Statistic:

Country/Region:

Time Period:

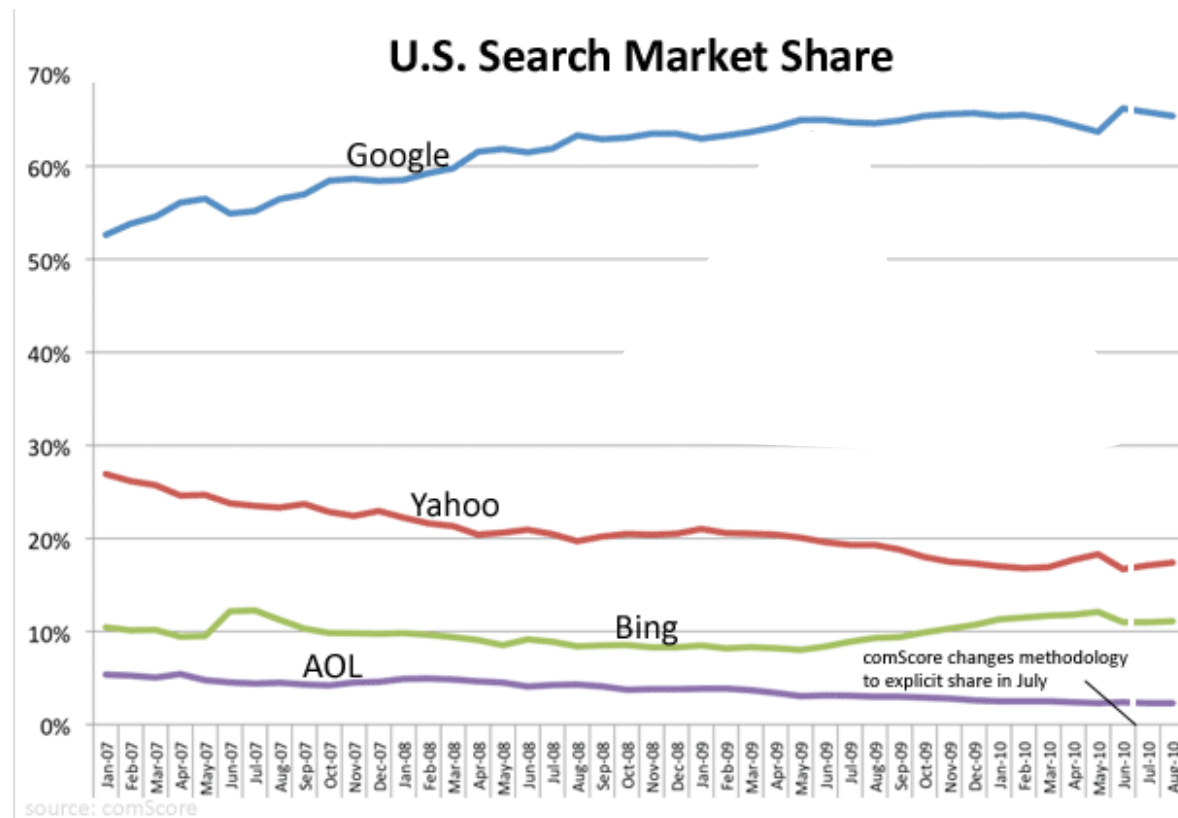
Unique Advantage

Then: AT&T vs Sprint



Unique Advantage

Now: Google Search



Iterate early & often

Invent.

Test.

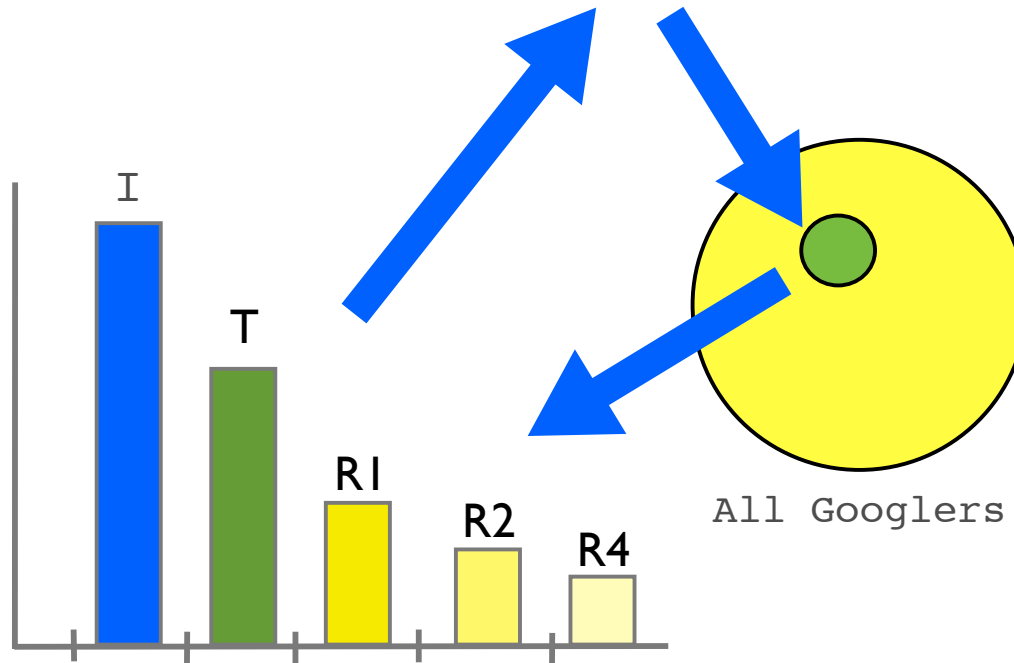
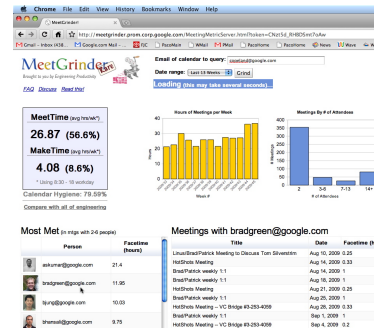
Test.

Test.

Repeat.



Run multiple experiments with small subsets of target population

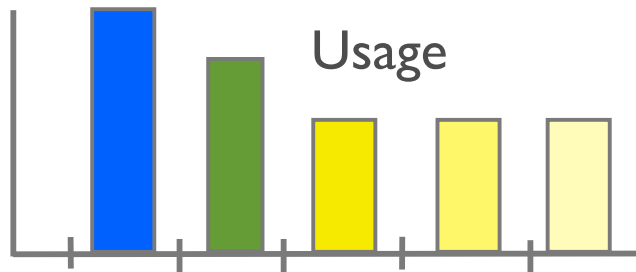


Using the Manifesto

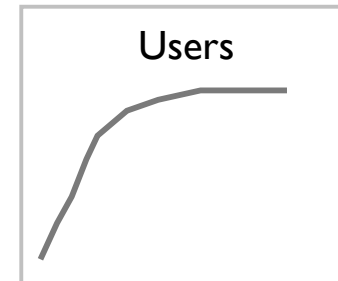
#1 Try some Pretotypes/Experiments

#2 Develop, launch and test ideas to small group

#3 Abandon, or Repeat #2 until you see this:



and/or



#4 Go pitch your ~~idea~~ innovation with data

Papertyping

The Birth of Android Pretotyping





Androgen

Pretotype working Android apps in minutes

Chrome File Edit View History Bookmarks Window Help

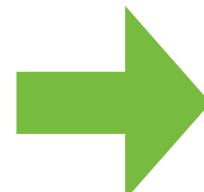
suhleritest.appspot.com/androgen-ide.bsl

Androgen IDE*
userID: asavoia ([Chart](#) | [Photos](#) | [Reload](#) | [Help](#) | [Samples](#) | [Published apps](#))

choose a ".aml" file OR choose a data file weight.aml
save locally delete file fetch upload

```
<reset/>  
<view text="My Weight" scale=30 >  
<label row=next text="\n\nEnter your weight:" >  
<entry row=next name=myWeight >  
<button row=next text="Send" action=logit >  
<action name=logit>  
<store csv="{date()}, ${myWeight.text}" >  
</action>
```

new androlet
label
text entry
button
smart buttons
store
button + store
photo button
fusiontables action [edit table](#)
additional markup templates
next attribute value



Androgen

Pretotyping Tool for Android



+

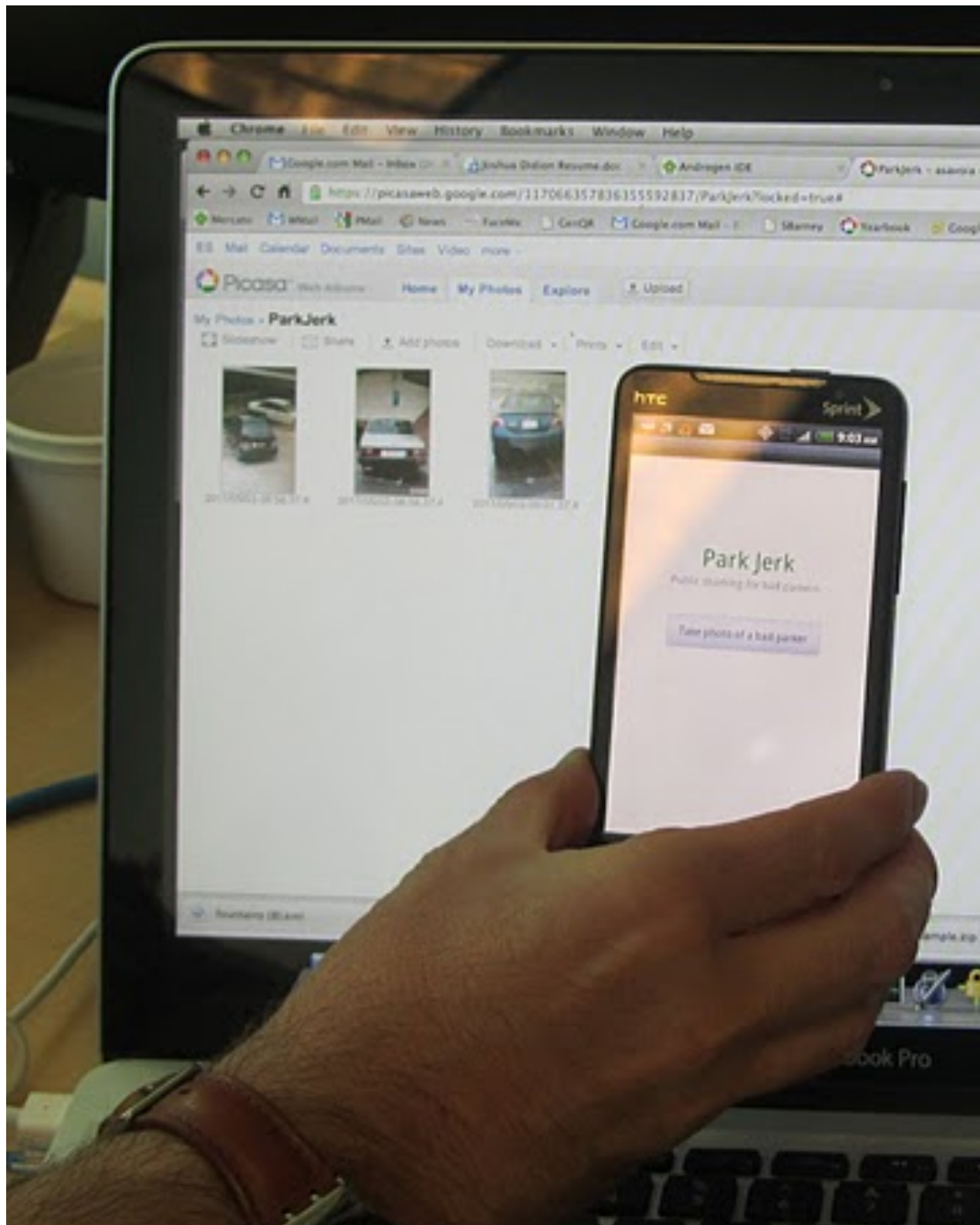


+



=





Rapid Sharing



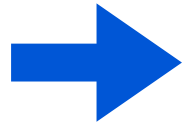
+



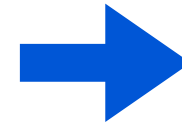
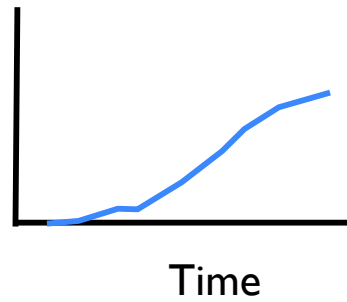
=



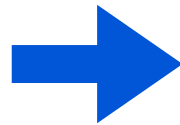
Rapid, real-time usage stats



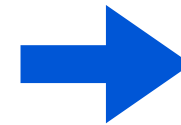
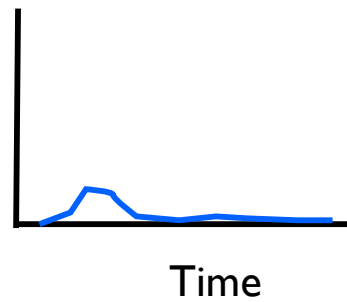
Usage



**Probably
worth
building
it right**

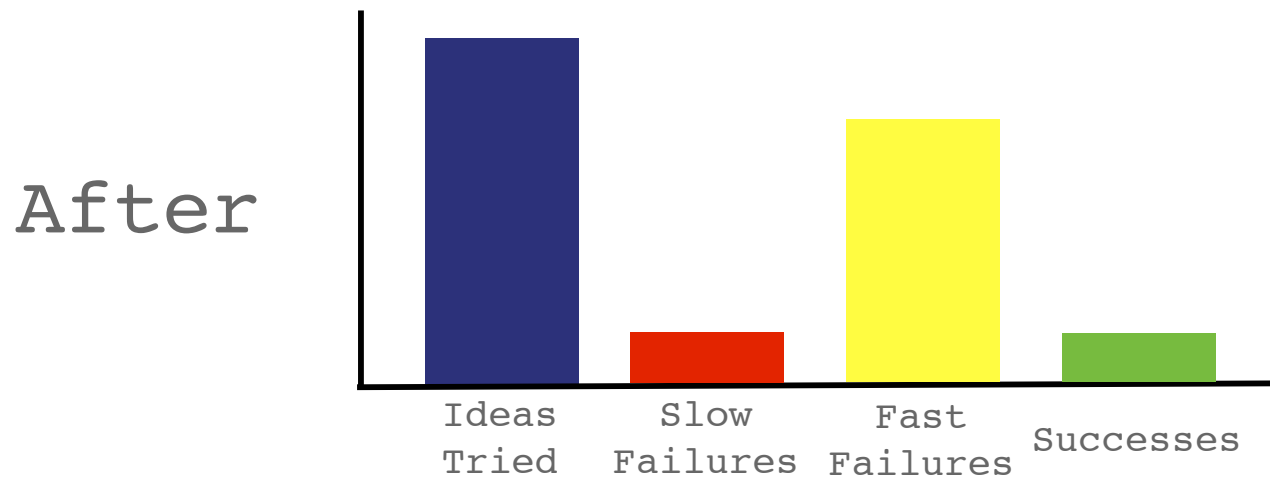
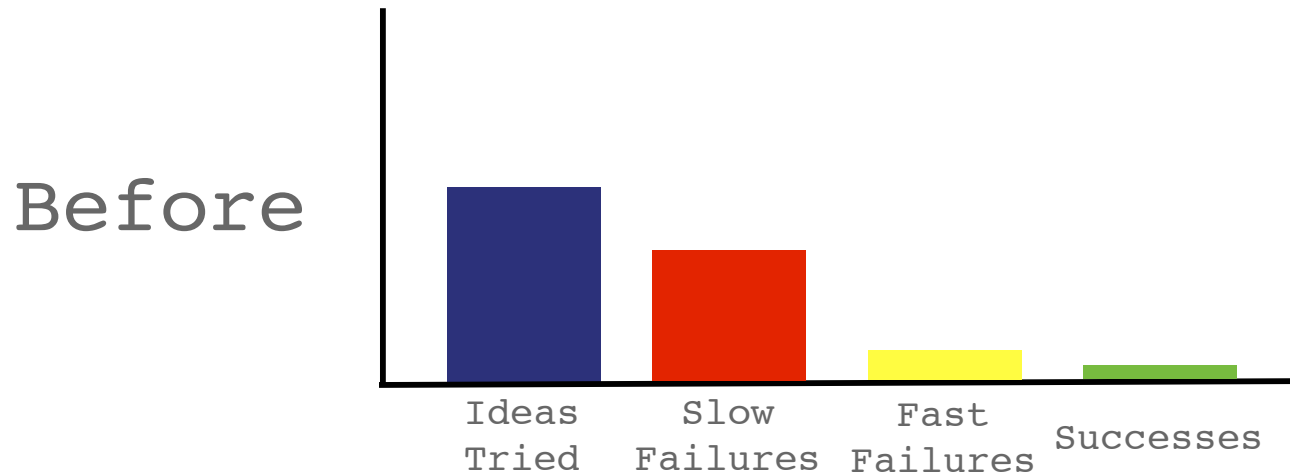


Usage



**Probably
not worth
building
it right**

The Pretotyping Effect



SALE
Last Offer

Great idea from Patrick



Now only
100 DKK

Bidding starts at ~~5,000~~ DKK

Innovation at Google

...plus a manifesto

Patrick Copeland

copeland@google.com

[twitter: copelandpatrick](https://twitter.com/copelandpatrick)

[#gotocph](#)

[#pretotyping](#)

[#thoughtland](#)

[#buildrightit](#)

the pretotyping manifesto

innovators beat ideas
pretotypes beat productypes
data beats opinions
doing beats talking
simple beats complex
now beats later
commitment beats committees

<http://pretotyping.org>

