

Startup Metrics, a love story.

***Everything you need to know about
Startup Product Metrics.***

#iCatapult Workshop - 2013-08-12

Slideshare Exclusive: The full Powerdeck. ;)

@andreasklinger

“Startup Founder”

“Product Guy”



A black and white photograph of a woman with short, dark hair, wearing round glasses and a light-colored, button-up jacket. She is looking down at an open book or document resting on a desk. The background is slightly out of focus, showing what appears to be a window or a wall with some vertical lines.

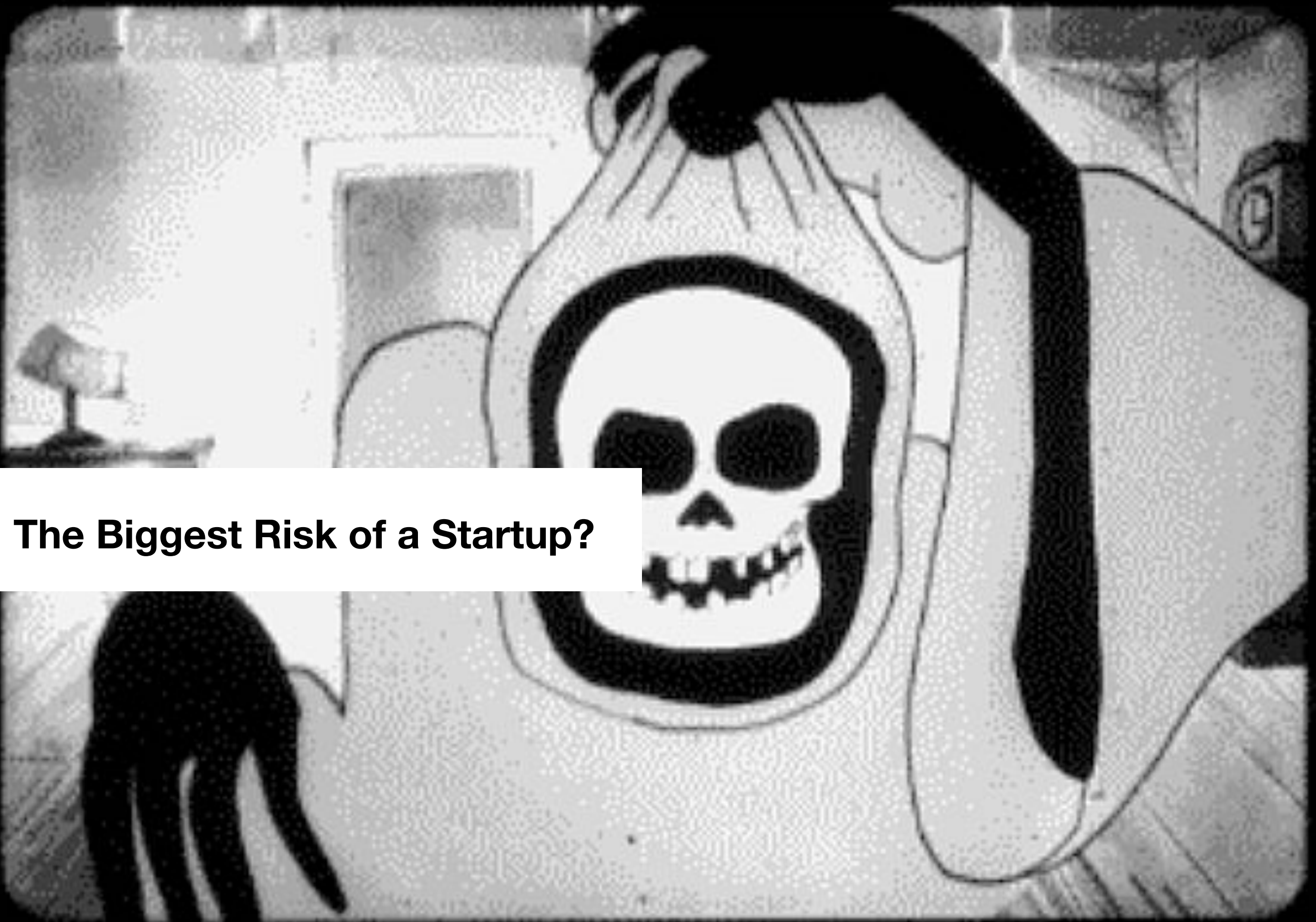
@andreasklinger

“Startup Founder”

“Product Guy”

What we will cover

- Early Stage Metrics (Pre Product Market Fit).
- Create your dashboard & customer journey map.
- Wrong assumptions on Metrics
- Lean Analytics & Advanced Topics



The Biggest Risk of a Startup?

A black and white illustration of a person with a skull for a face, wearing a dark jacket and holding their hands to their head in a gesture of stress or despair. The background shows a dimly lit room with a lamp and a window.

The Biggest Risk of a Startup?

Time/Money? **No** You will learn a lot + huge network gain.

A black and white photograph of a person with long dark hair, wearing a light-colored shirt, holding a large human skull in front of their face with both hands. The background is slightly out of focus, showing what appears to be an indoor setting with a lamp and a doorway.

The Biggest Risk of a Startup?

Building ALMOST the right thing.

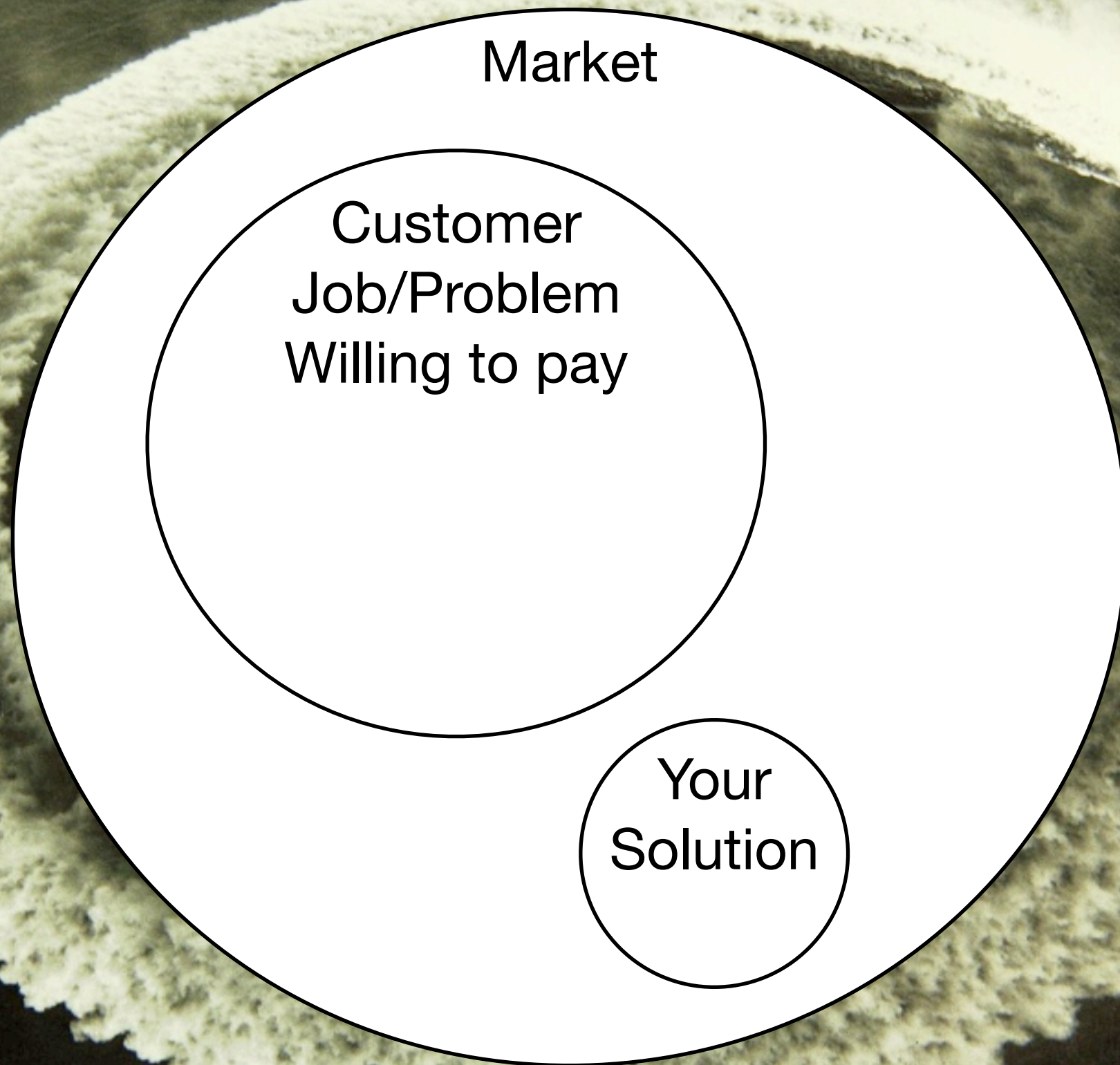
Seeing the successful new competitor who does what you do, but has one little detail different that you never focused on.

“Startups don’t fail because they lack a product; they fail because they lack customers and a profitable business model” *Steve Blank*

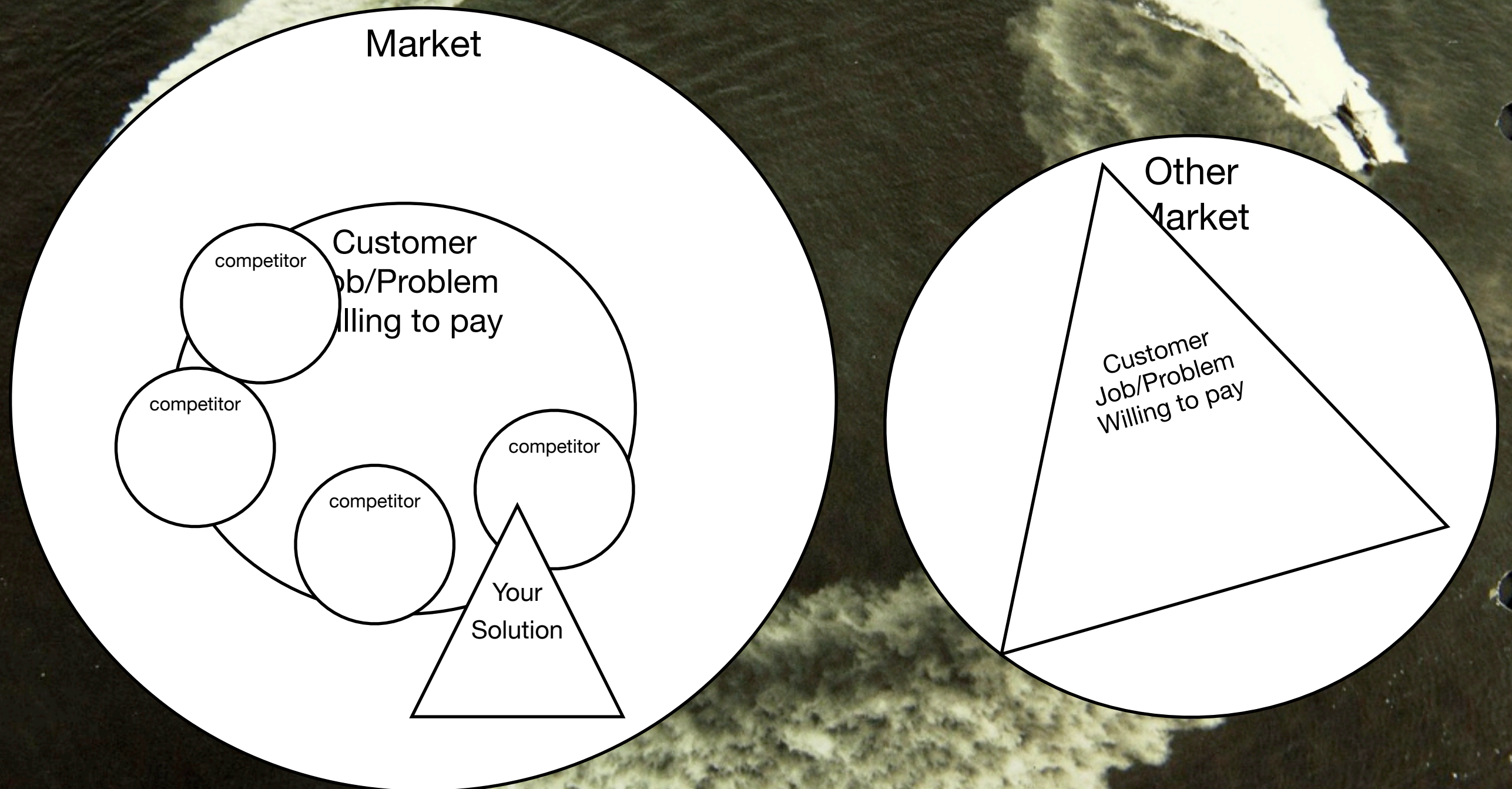


And it might have been where you didn't look.

To miss your opportunity. By focusing on the wrong thing.



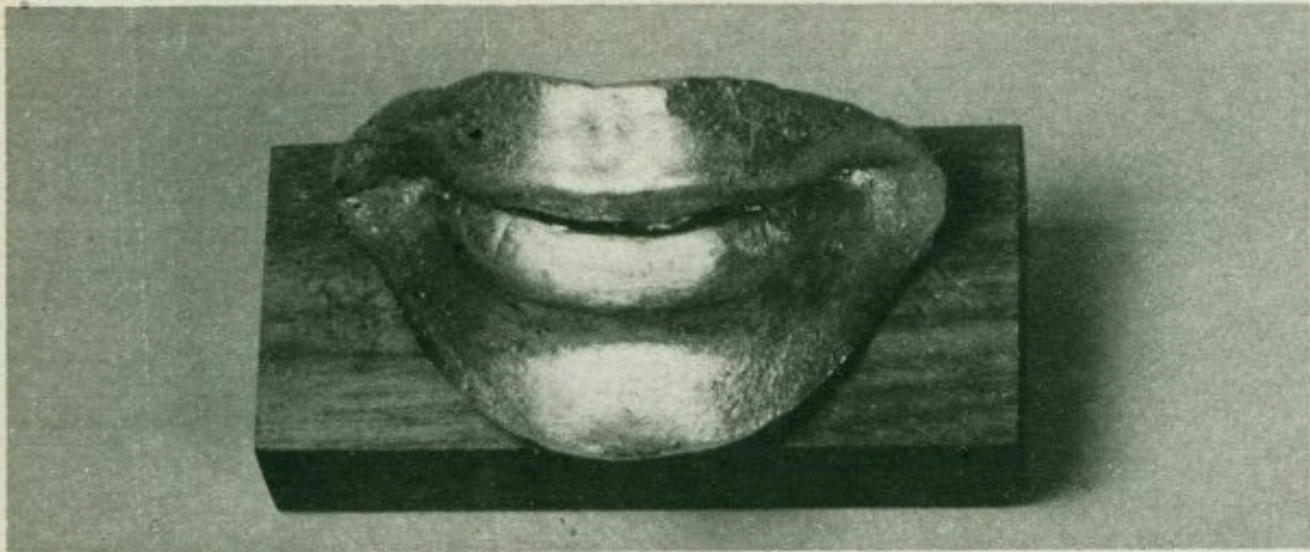
Or by looking at the wrong customer.



Startup Founders.



Give him your lips.



In passionately eternal bronze!

Totally intimate, original, captivating! No other girl has ever given him this, no other ever can; your very own lips! Smiling, pouting, nibbling, kissing – perfectly reproduced in rich, warm bronze.

Our foundry (custom caster for sculptors and museums) makes it so simple. Send us your order and we send you our foolproof Take-My-Lips Kit. You close your eyes, breathe deeply; think rapturously of your love, and cover your lips with our goo. In minutes you've recorded them for posterity. Rush your impression to us in the special mailer, and about a week after we get it we airmail you back your lips – in eternal bronze!

Can they be worn on a neck chain? Yes. A belt buckle? Yes. A biceps band? Yes, yes, yes! Will we mount them on an oiled walnut base for a small extra charge? Of course. Can you get more than one casting? Yes, you devil. (Can we cast other things? You bet – name it and we'll quote.)

Christmas is coming – don't just sit there. This time, wrap him up for good. Give him your lips!

To order: Rush us your check or money order (sorry, no c.o.d.) for \$21.75. Extra castings, \$15 each. Walnut base, \$2 each. If your lips live in New York, please add sales tax. We'll send your Take-My-Lips Kit by return mail! First come, first served – and we can't guarantee Christmas delivery on impressions received after Nov. 27. Hurry – can't you just see his face?

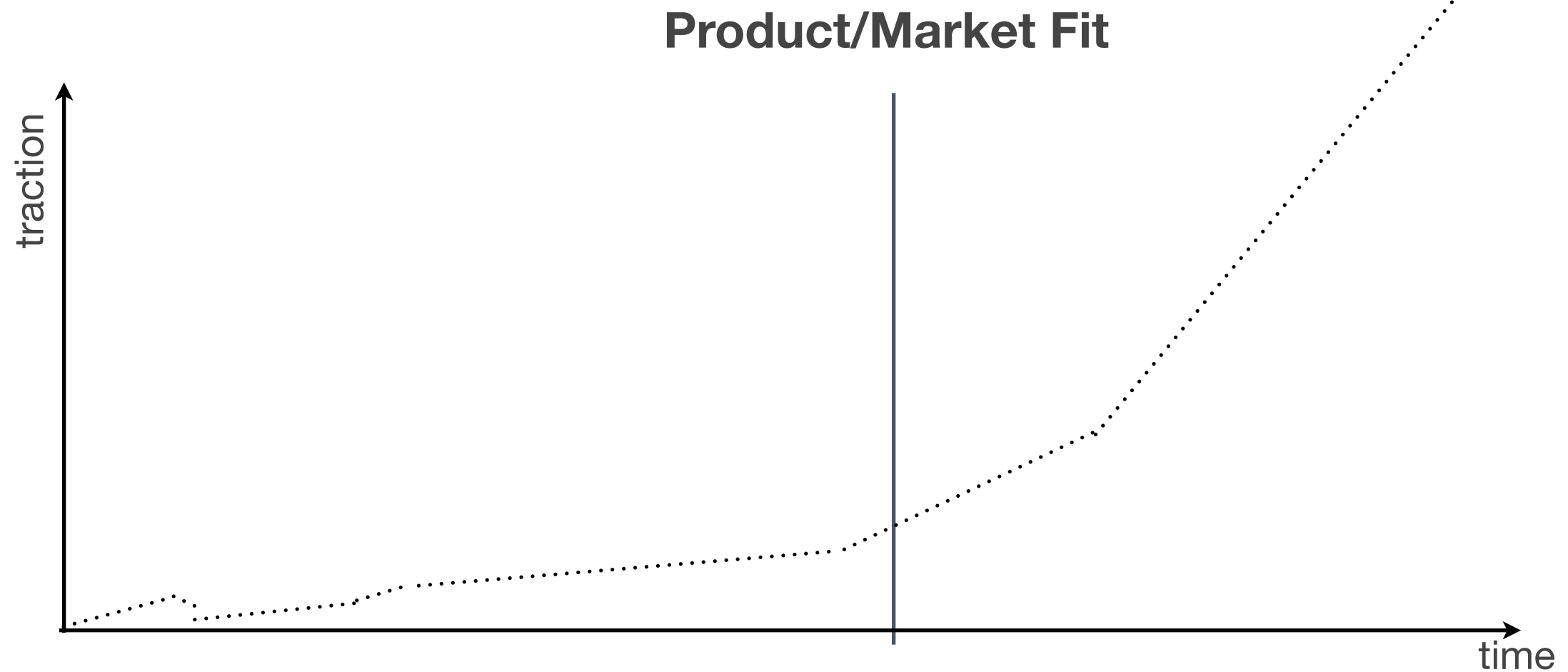
**South Mountain Passage
Garrison, N.Y. 10524**

Some startups have ideas for a new product.

Looking for customers to buy (or at least use) it.

Customers don't buy.

“early stage”



**With early stage
I do not mean “X Years”**

I mean before product/market fit.

Product/market fit

Being in a good market
with a **product that can satisfy
that market.**

~ Marc Andreessen





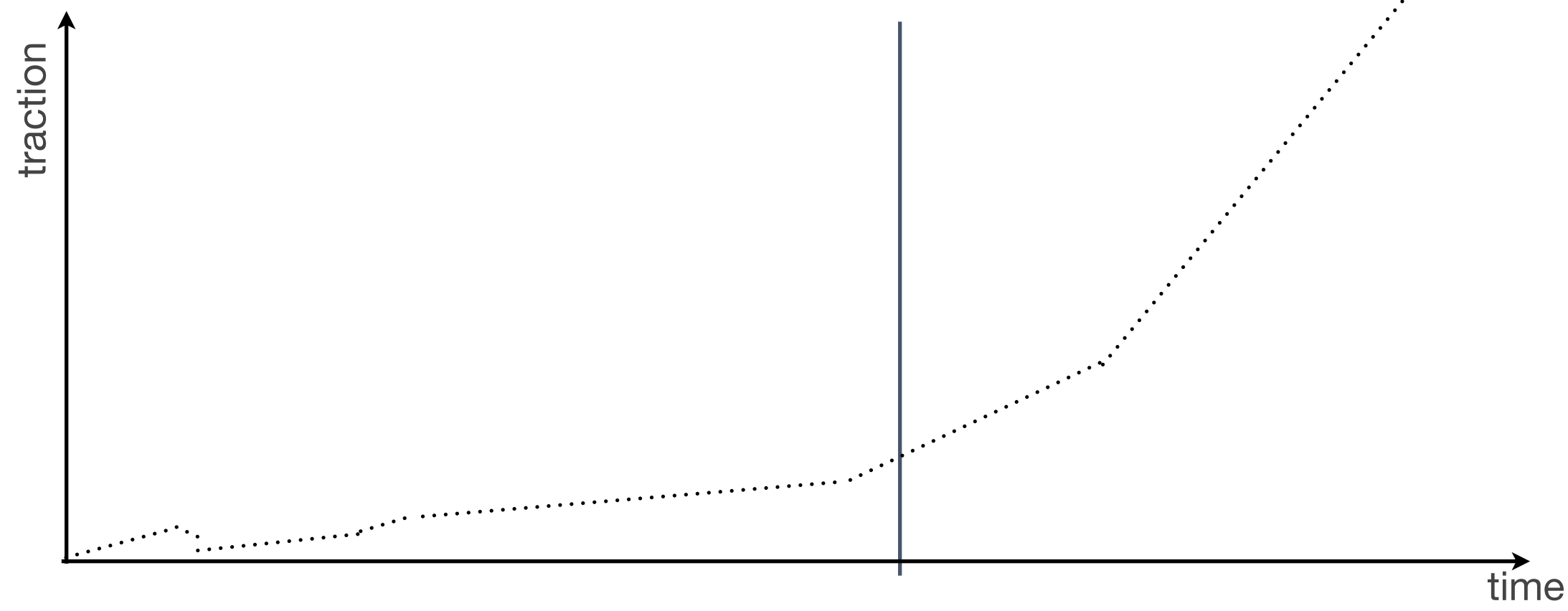
Product/market fit

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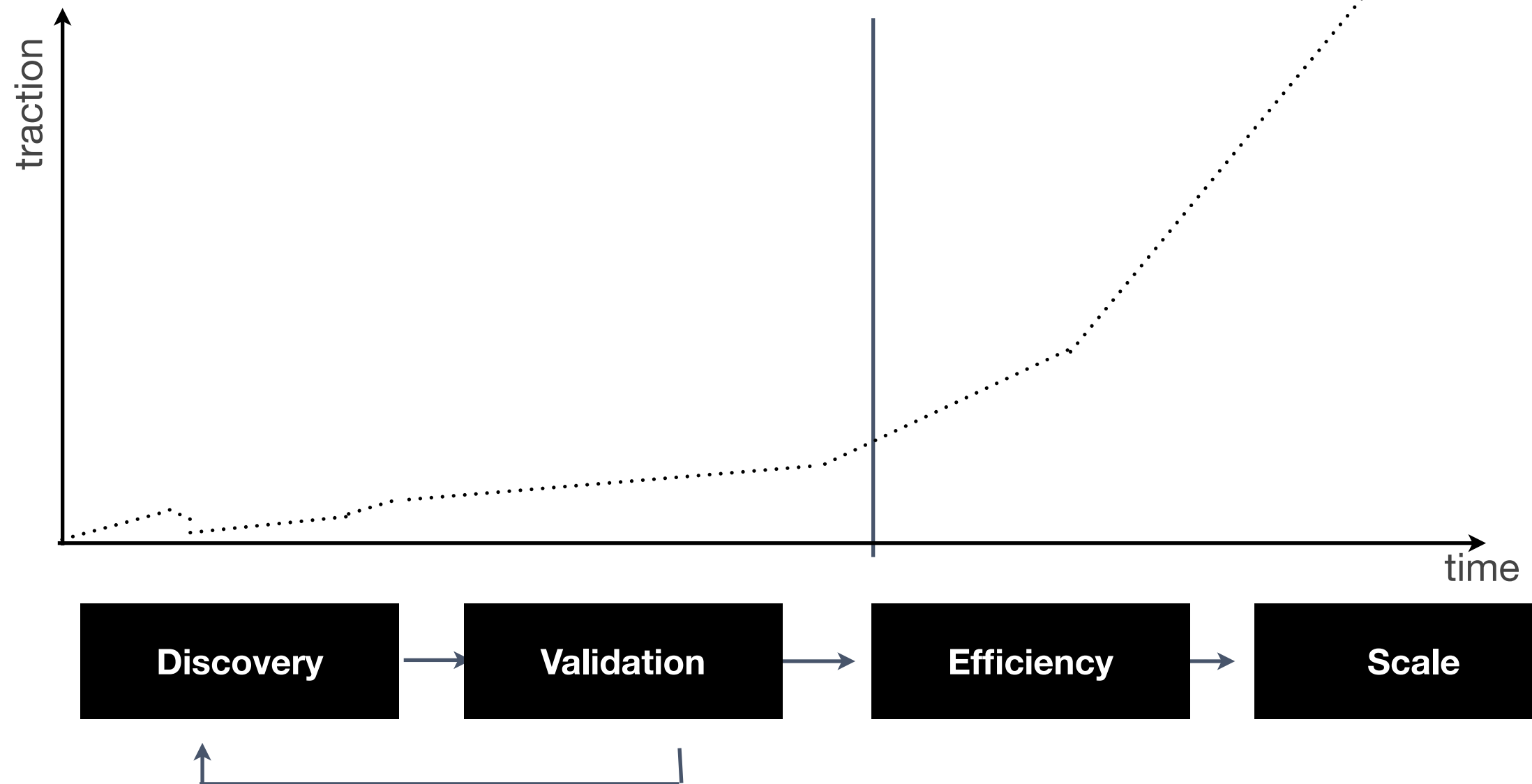
~ Marc Andreessen

= People want your stuff.

Product/Market Fit

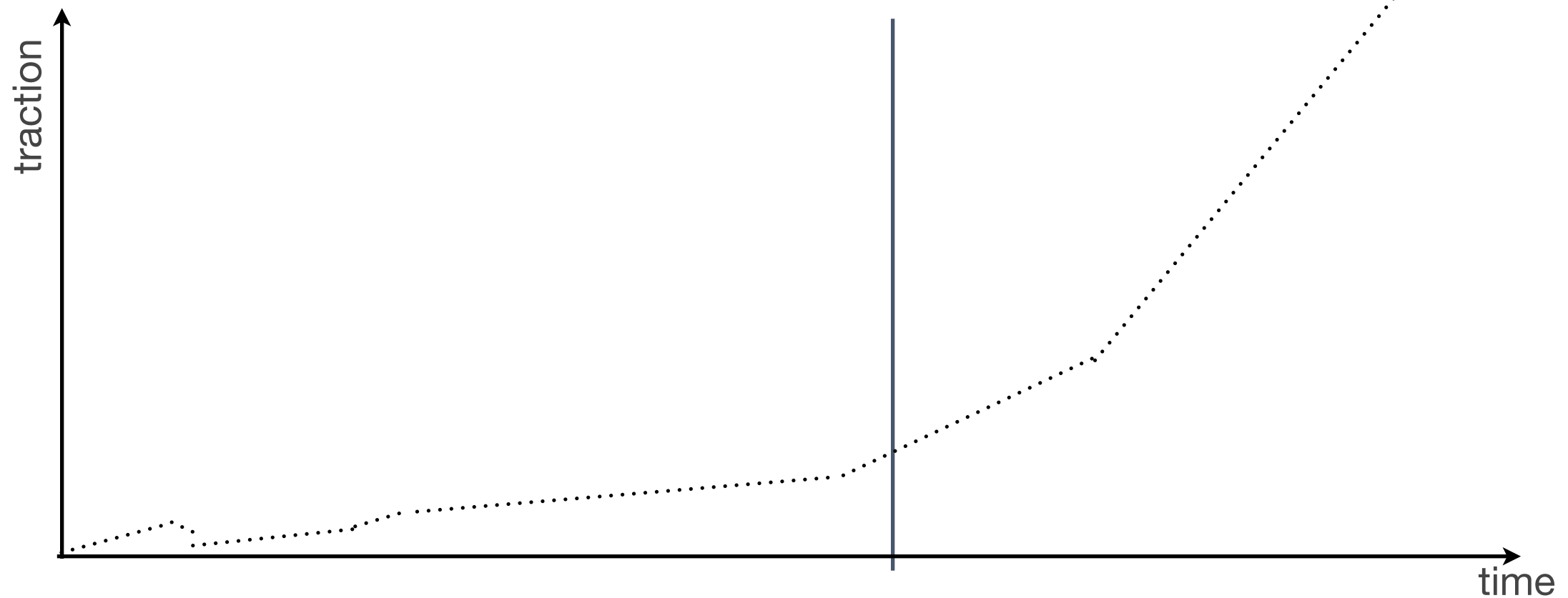


Product/Market Fit

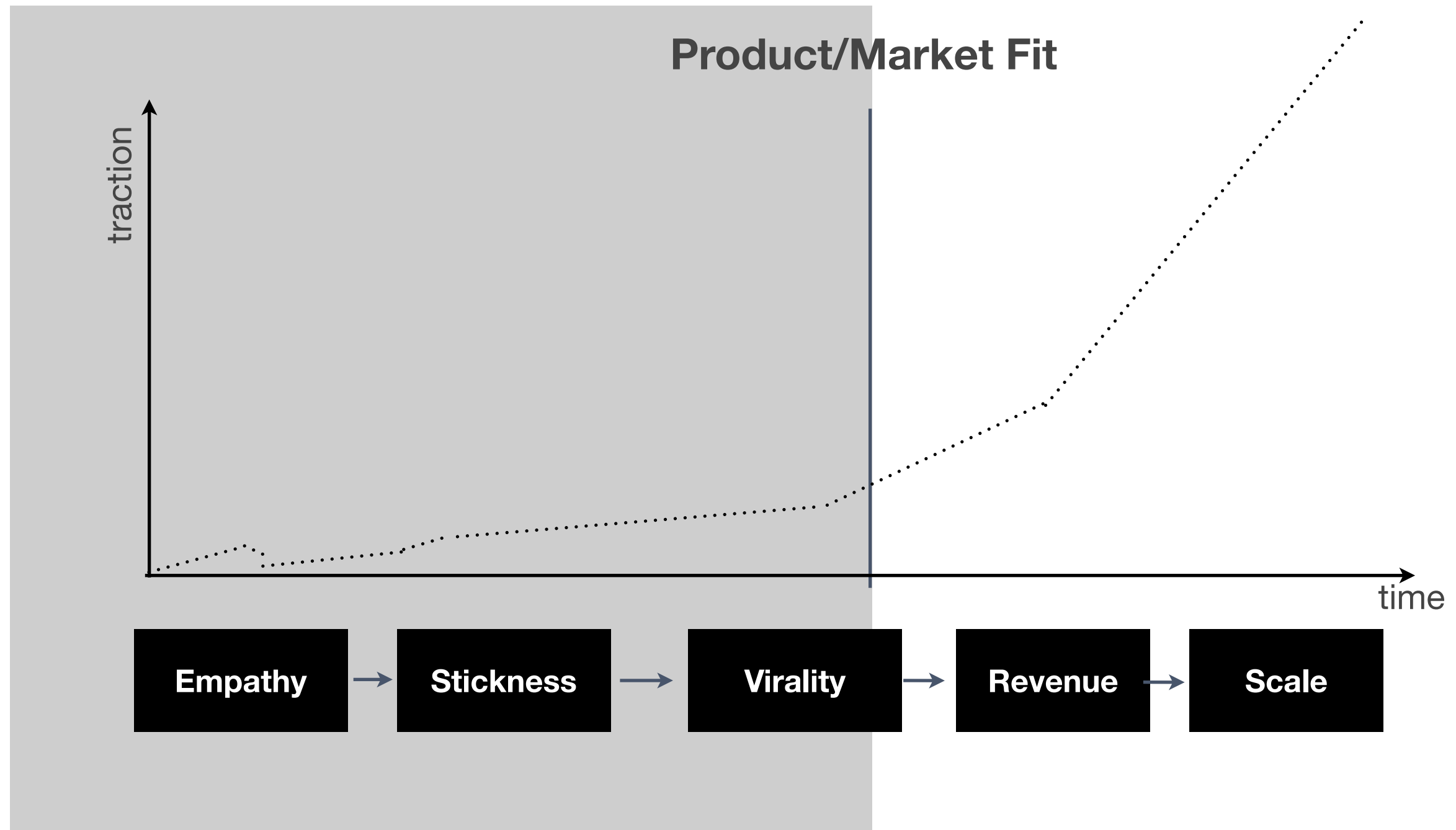


Steve Blank - Customer Development

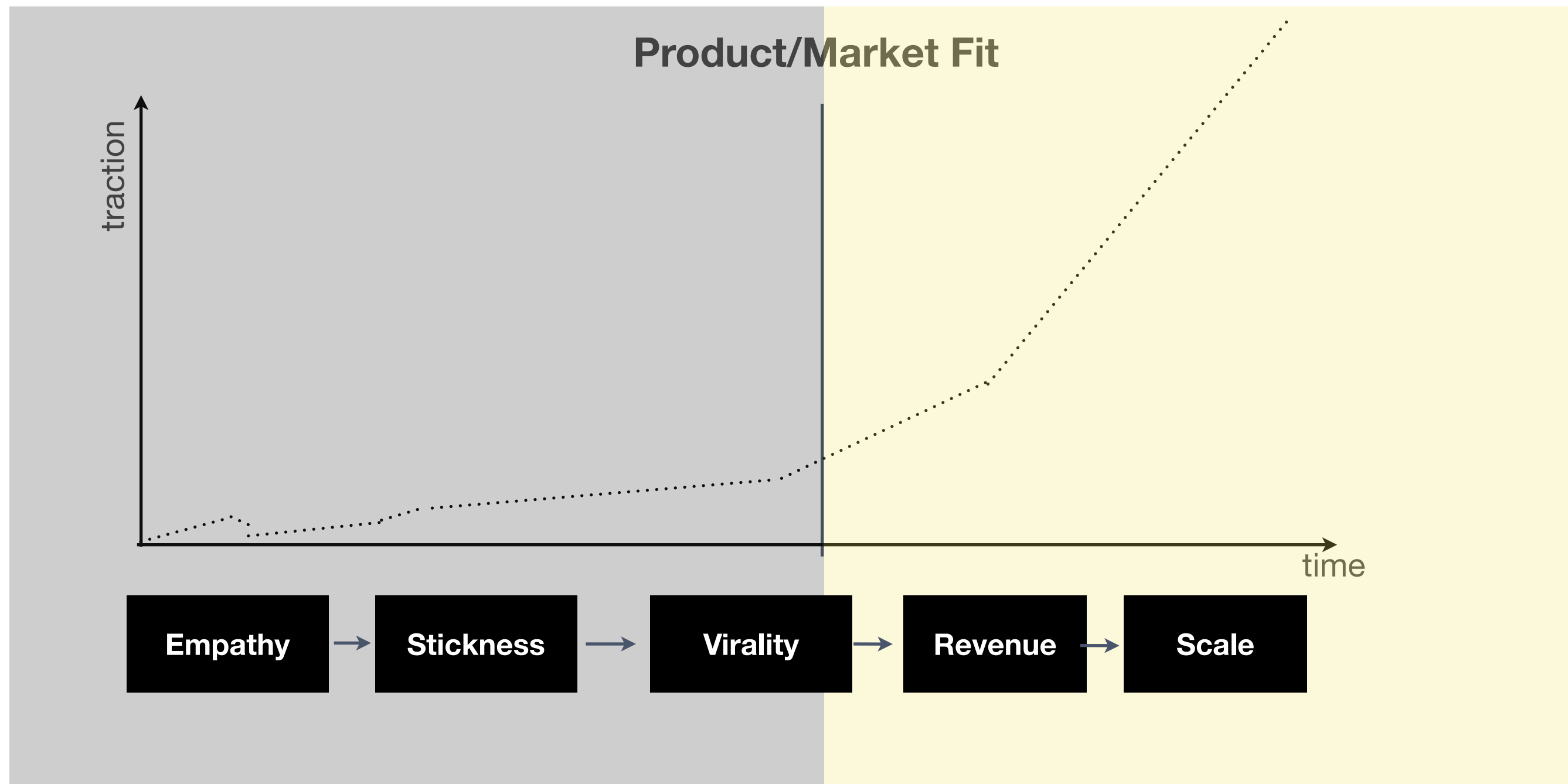
Product/Market Fit



Ben Yoskovitz, Alistair Croll - Lean Analytics

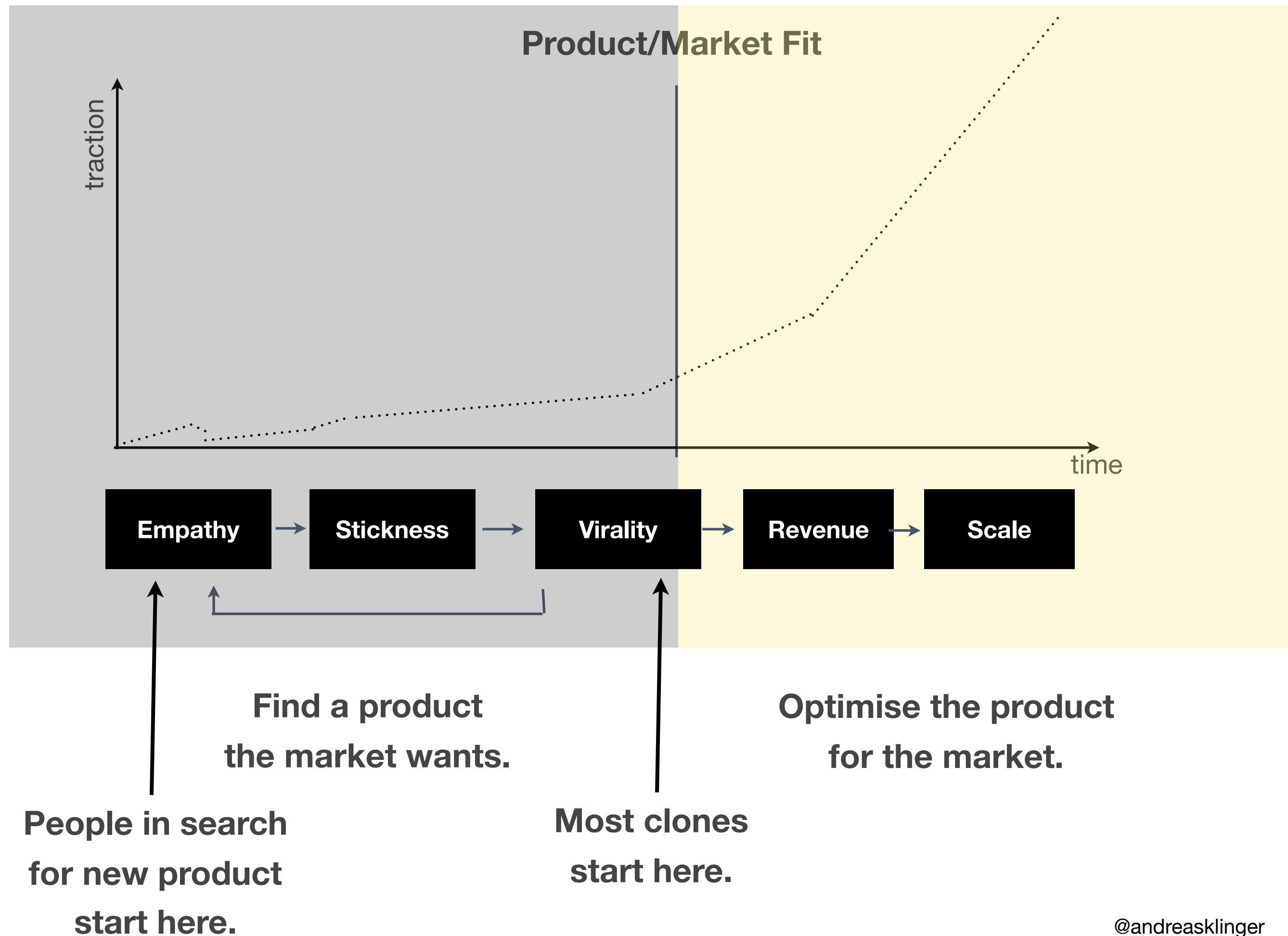


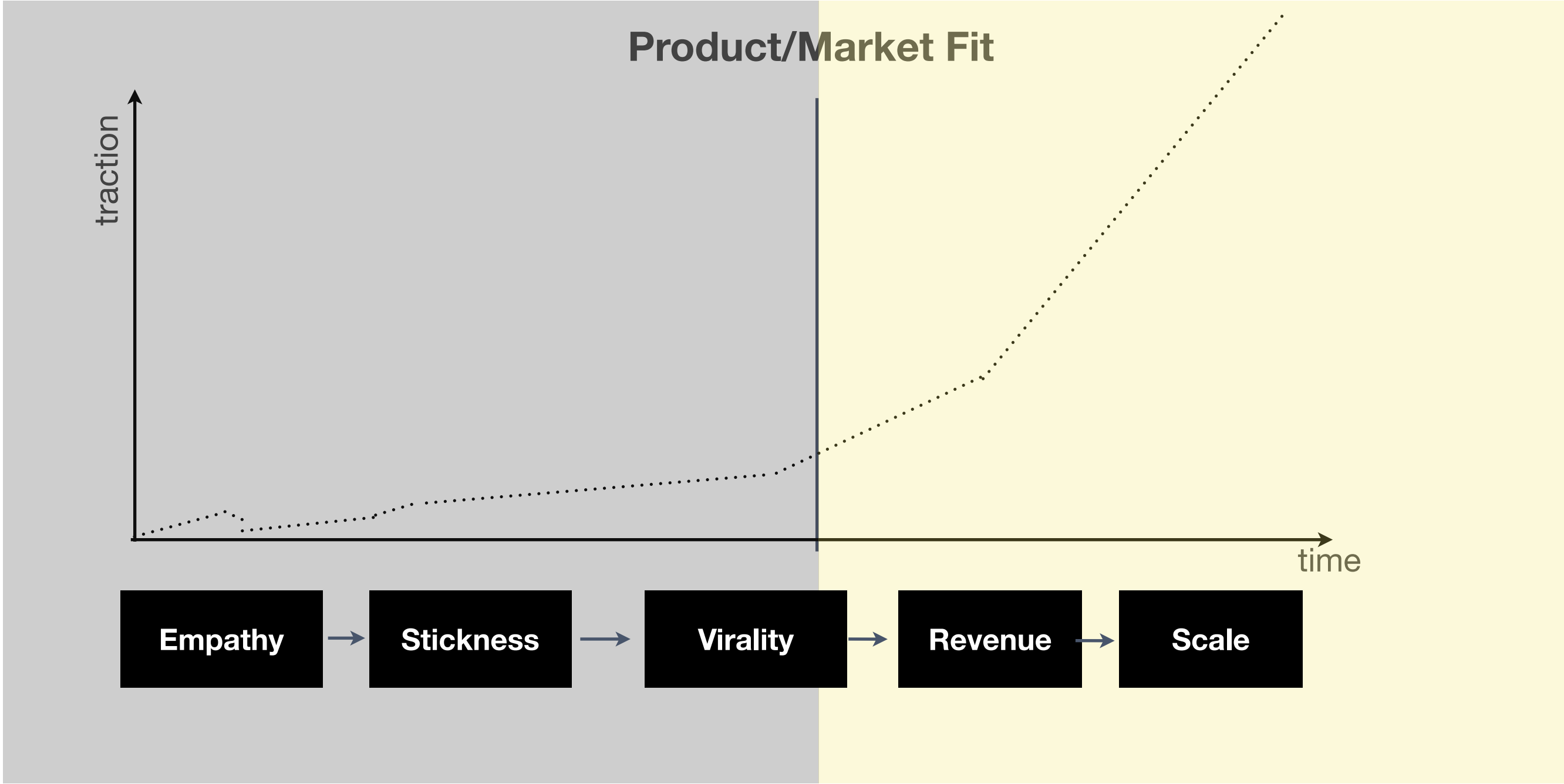
**Find a product
the market wants.**



**Find a product
the market wants.**

**Optimise the product
for the market.**

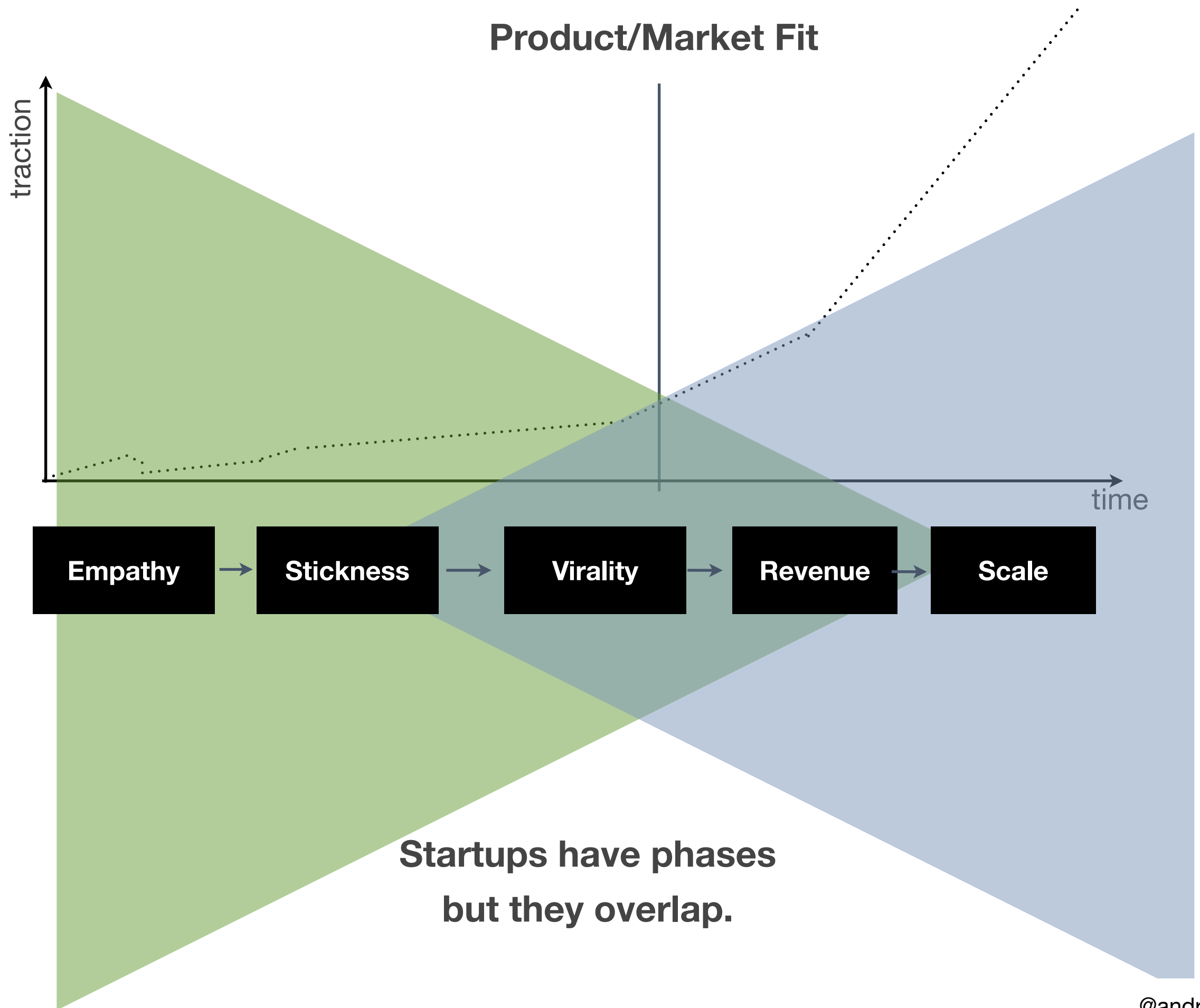


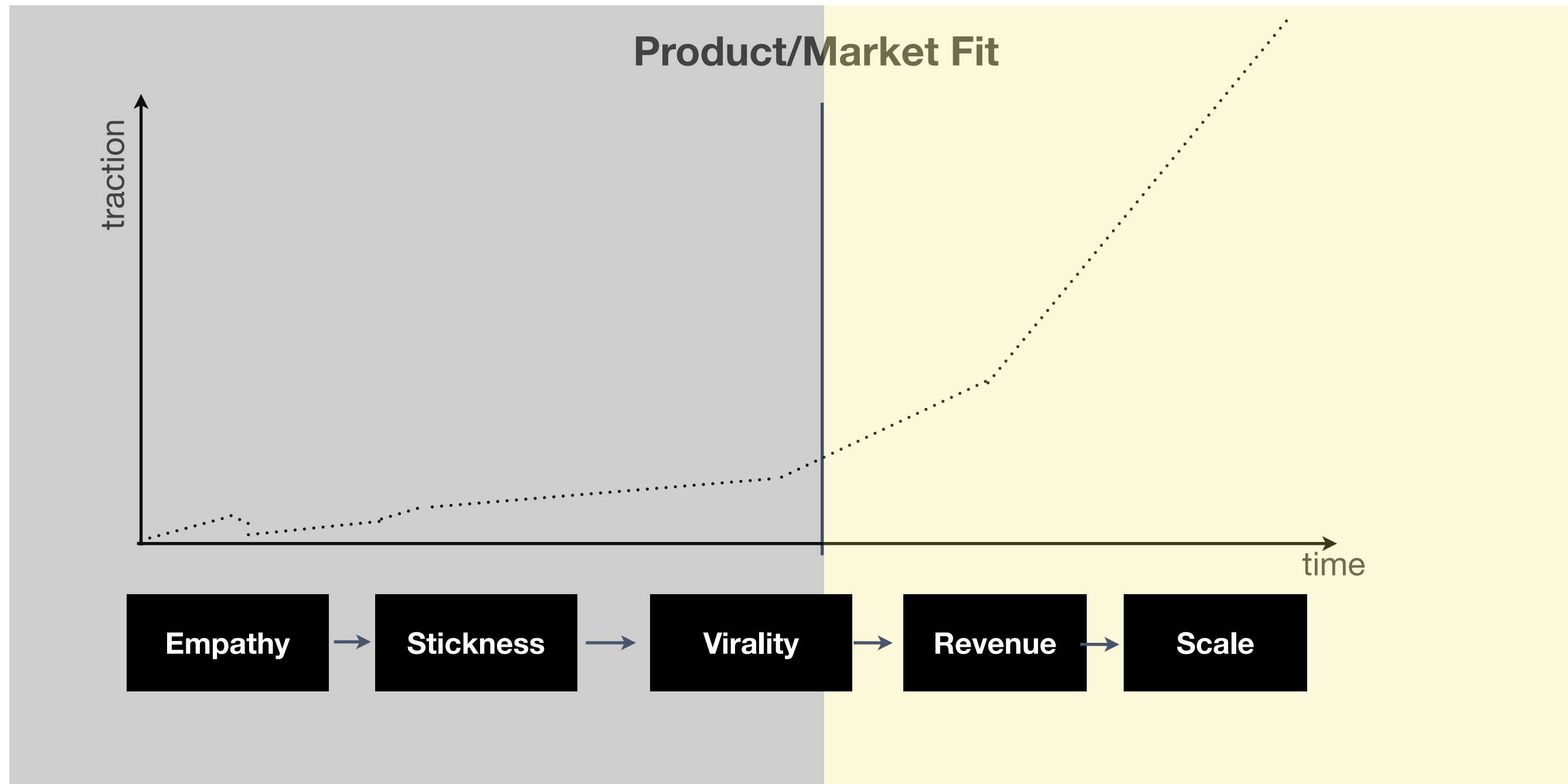


**Product & Customer
Development**

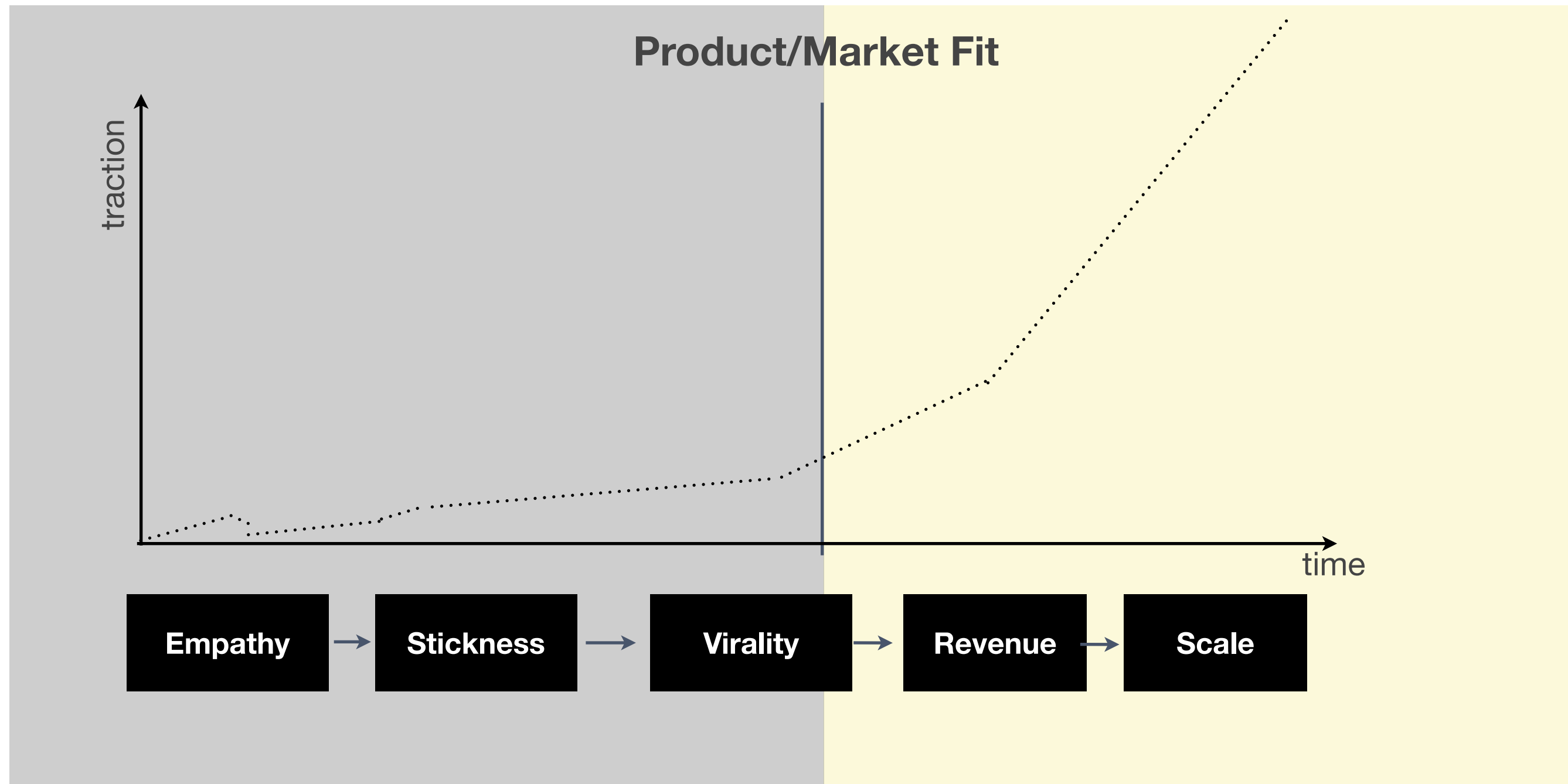
**Scale Marketing
& Operations**

Product/Market Fit






83% of all startups are in here.



83% of all startups are in here.

**Most stuff we learn about
web analytics is meant for this part**



Most of the techniques/pattern
we find when we look to learn about
metrics come out from **Online Marketing**



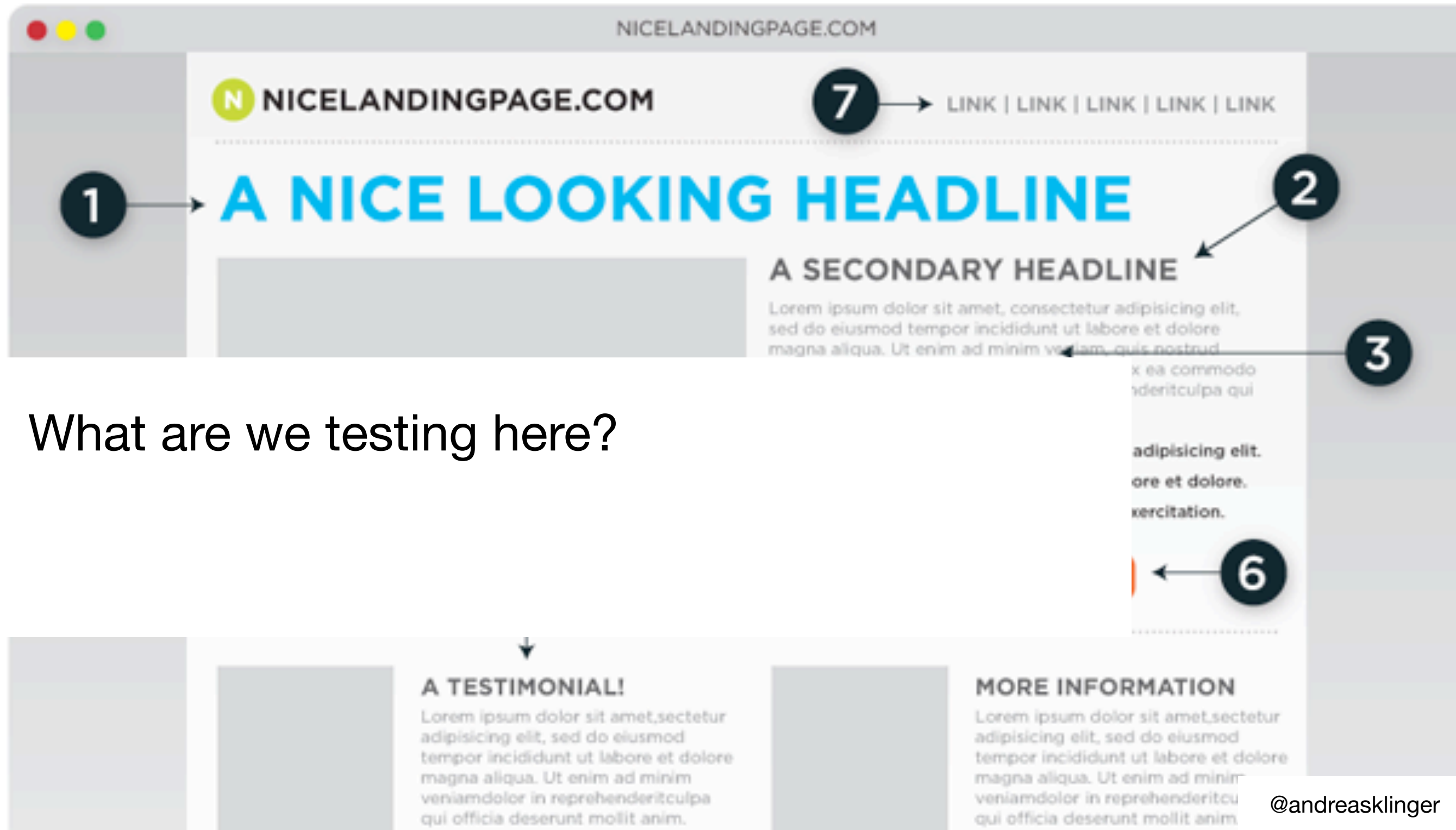
A/B Testing, Funnels, Referral Optimization, etc etc
They are about optimizing, not innovating

THE ANATOMY OF A PERFECT LANDING PAGE

HOW DESIGN TRANSLATES TO USERS



TEN KEY LANDING PAGE FEATURES THAT DRAW IN USERS

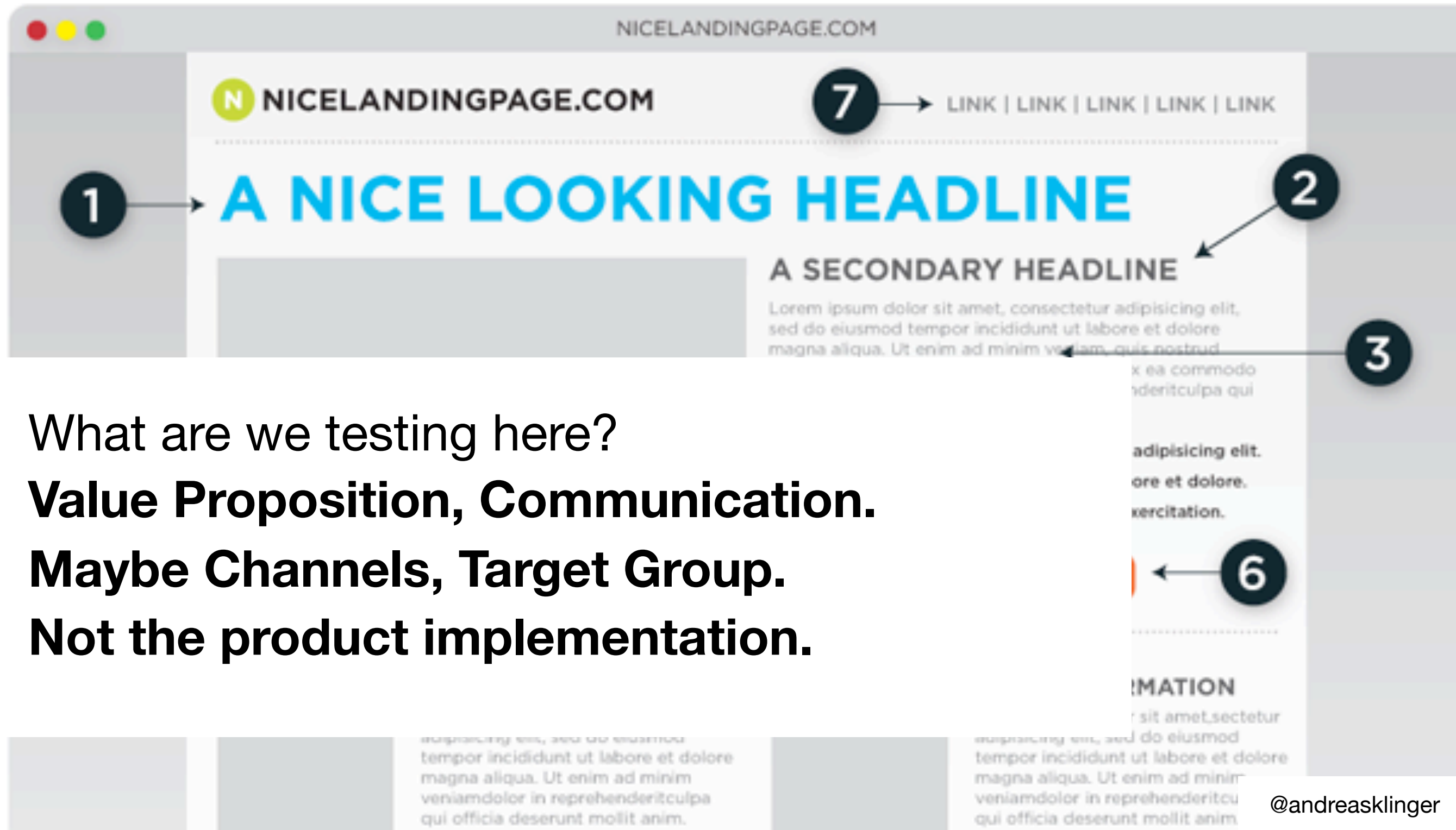


THE ANATOMY OF A PERFECT LANDING PAGE

HOW DESIGN TRANSLATES TO USERS



TEN KEY LANDING PAGE FEATURES THAT DRAW IN USERS



What are we testing here?

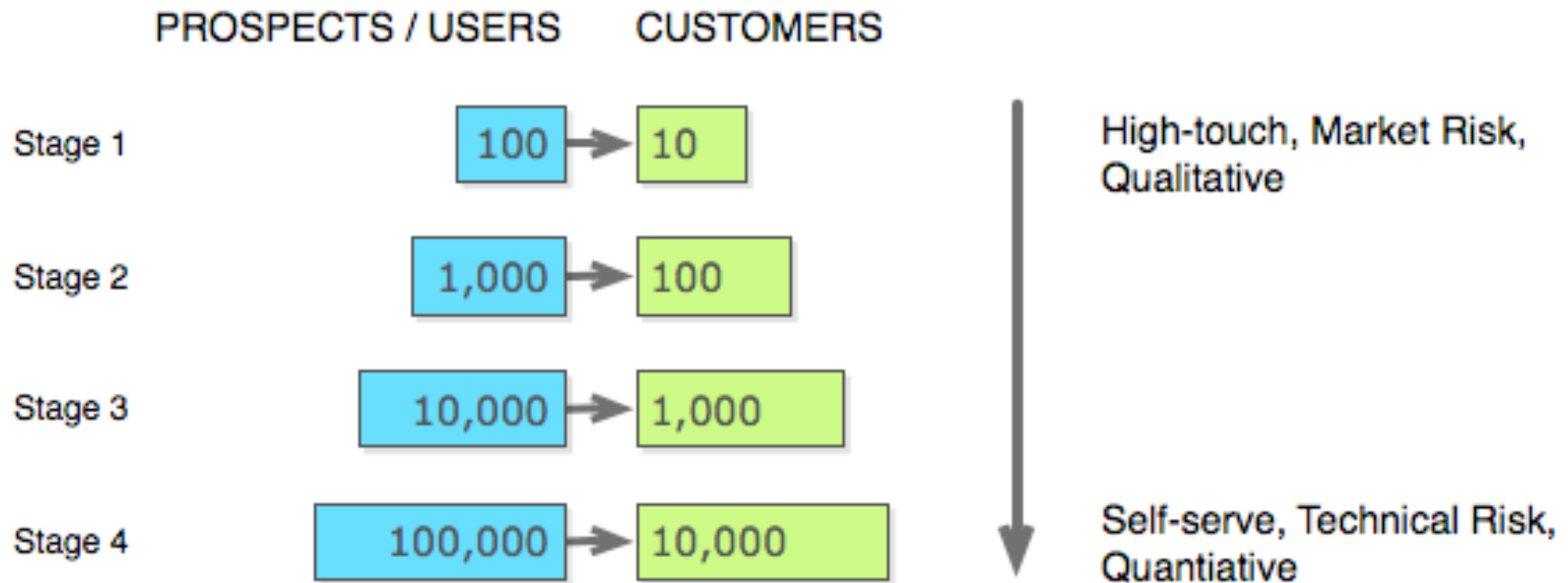
Value Proposition, Communication.

Maybe Channels, Target Group.

Not the product implementation.



We need product insights.



Good news: We don't need many people
It's too early for optimizations.

Challenge #1: Get them to stay.

Dashboard

Visitors

Overview

Map Overlay

New vs. Returning

Languages

Visitor Trending

Visitor Loyalty

Browser
Capabilities

Network Properties

User Defined

Traffic Sources

Content

Goals

Settings

Email

Help Resources

About this Report

Conversion
University

Common Questions

Report Finder

Beta Feedback

Visitors Overview

Apr 1, 2007 - Apr 30, 2007

comparing: Mar 2, 2007 - Mar 31, 2007

Export

Email

Add to Dashboard



11,916 people visited this site



16,635 Visits

Mar 2, 2007 - Mar 31, 2007: 13,573
(+22.56%)

11,916 Absolute Unique Visitors

Mar 2, 2007 - Mar 31, 2007: 9,338 (+27.61%)



28,827 Pageviews

Mar 2, 2007 - Mar 31, 2007: 24,871
(+15.91%)

1.73 Average Pageviews

Mar 2, 2007 - Mar 31, 2007: 1.83 (-5.43%)



00:02:05 Time on Site

Mar 2, 2007 - Mar 31, 2007: 00:02:19
(-10.07%)

69.56% Bounce Rate

Mar 2, 2007 - Mar 31, 2007: 67.90% (+2.44%)



65.52% New Visits

Mar 2, 2007 - Mar 31, 2007: 62.65% (+4.59%)

Visitor Segmentation

Visitors Profile: languages, network locations,
user definedBrowser Profile: browsers, operating systems,
browser and operating systems, screen colors,
screen resolutions, java support, Flash

Map Overlay

Geolocation visualization

Dashboard

Visitors

Overview

Map Overlay

New vs. Returning

Languages

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11,916 people



16,



11,



28,



1.7



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“...interesting...”

Dashboard

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Add to Dashboard

Apr 1, 2007 - Apr 30, 2007

comparing: Mar 2, 2007 - Mar 31, 2007

Mar 2, 2007 - Mar 31, 2007 Apr 1, 2007 - Apr 30, 2007

Visitors

900

March 5, 2007
Visitors: 373

900

What does this mean for my product?

Are we even on the right track?

(+15.91%)

**1.73** Average Pageviews

Mar 2, 2007 - Mar 31, 2007: 1.83 (-5.43%)

**00:02:05** Time on SiteMar 2, 2007 - Mar 31, 2007: 00:02:19
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Map Overlay

Geolocation visualization

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▶ Visitor Trend

▶ Visitor Loyalt

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Help Resource

⑦ About this Re

⑦ Conversion
University

⑦ Common Que

⑦ Report FINDER

⑦ Beta Feedba

eg. What is a good Time on Site?

**Maybe users spend time reading
your support pages just because
they are super confused.**

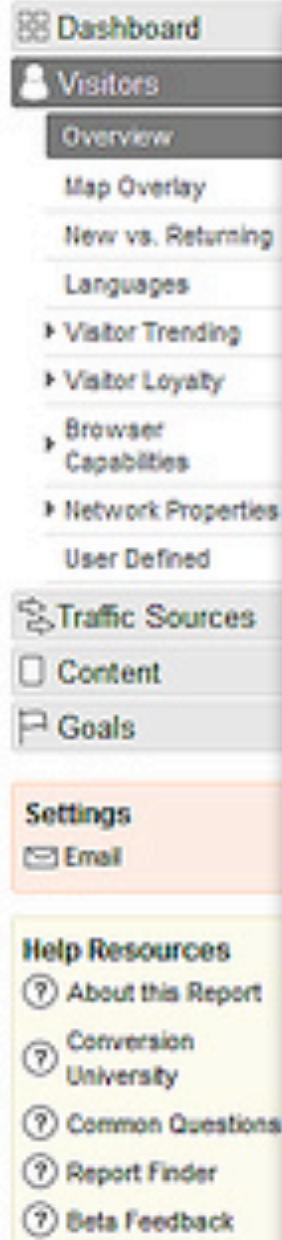
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Google Analytics is meant for Referral Optimization.

***Where does traffic come from?
Is this traffic of value?***





THE LONGEST TALK TIME
OF ANY 4G SMARTPHONE*

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Events

NEWS

Comment 14

f Like 543

t Tweet 288

in Share 34

g +1 17

Change.org Hits 10 Million Members, Now The "Fastest-Growing Social Action Platform On The Web"



FREDERIC LARDINOIS

Thursday, April 5th, 2012

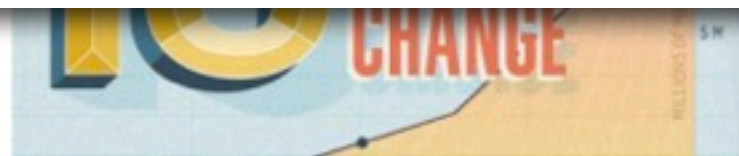
14 Comments

GOT A TIP? TELL US

Next Course: Social Media for S

udemy

What does it mean anyway?



rather slowly in its early years, it's on a tear now. According to Change.org's own data, the site just passed 10 million users and is now growing by 2 million members per month. That's quite a difference from last October, when the site was

only growing by about 300,000 members per month. This makes Change.org the fastest-growing site of its kind.

After a few pivots (it was once a blog network, too), the site now almost exclusively focuses on petitions. As Change.org's CEO Ben Rattray told me earlier this morning, the rise of social media helped propel people's impression of what petitions can achieve forward. Not too long ago, petitions still had somewhat of a bad reputation and most people simply assumed that they didn't work. In Rattray's view, however, the rise of social media has made it clear to more people now that they can put pressure on their governments and large corporations by banding together. At the same time, of

Ruby Programming for Beginners

Learn to code in Ruby
easy steps!

Take this Course

@andreasklinger



What does it mean anyway?

“We have 50k registered users!”

Do they still use the service? Are they the right people?

“We have 5000 newsletter signups!”

Do they react? Are they potential customers?

“We have 500k app downloads!”

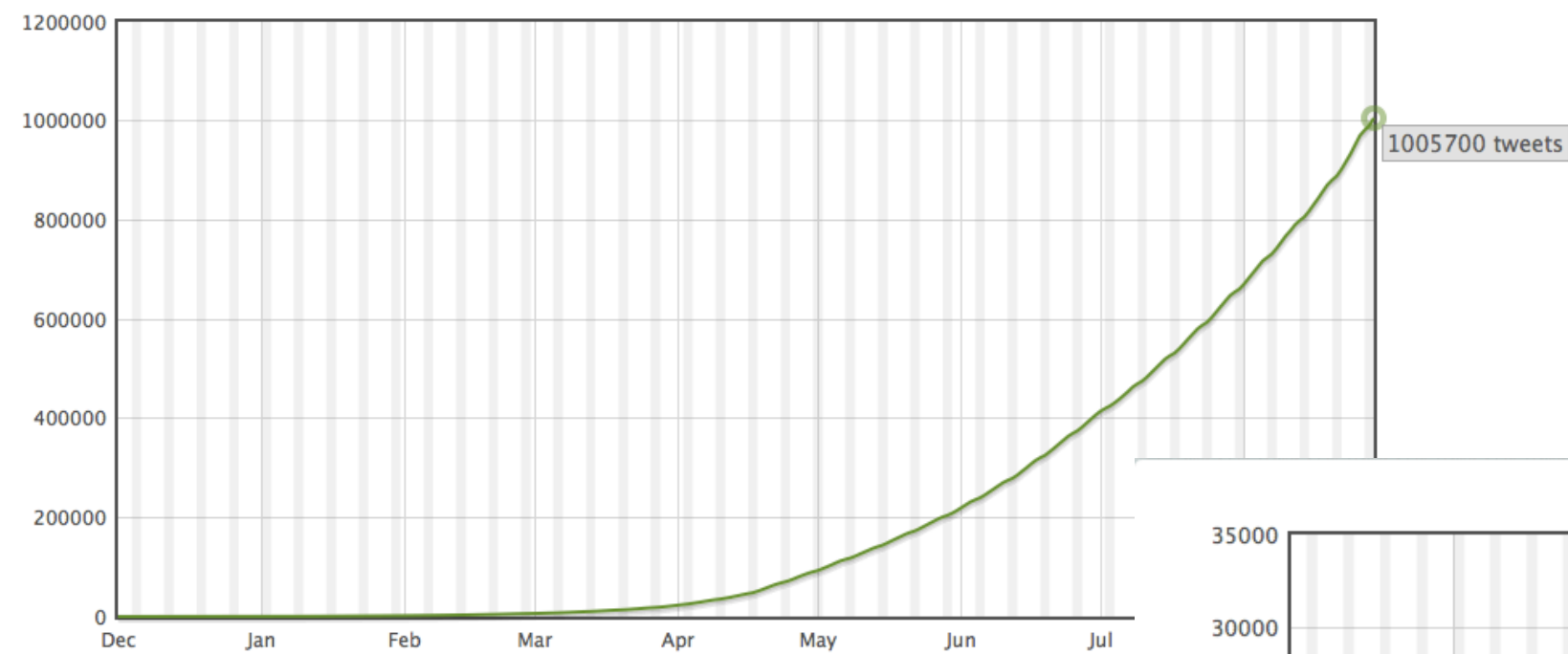
Do they still use the app?

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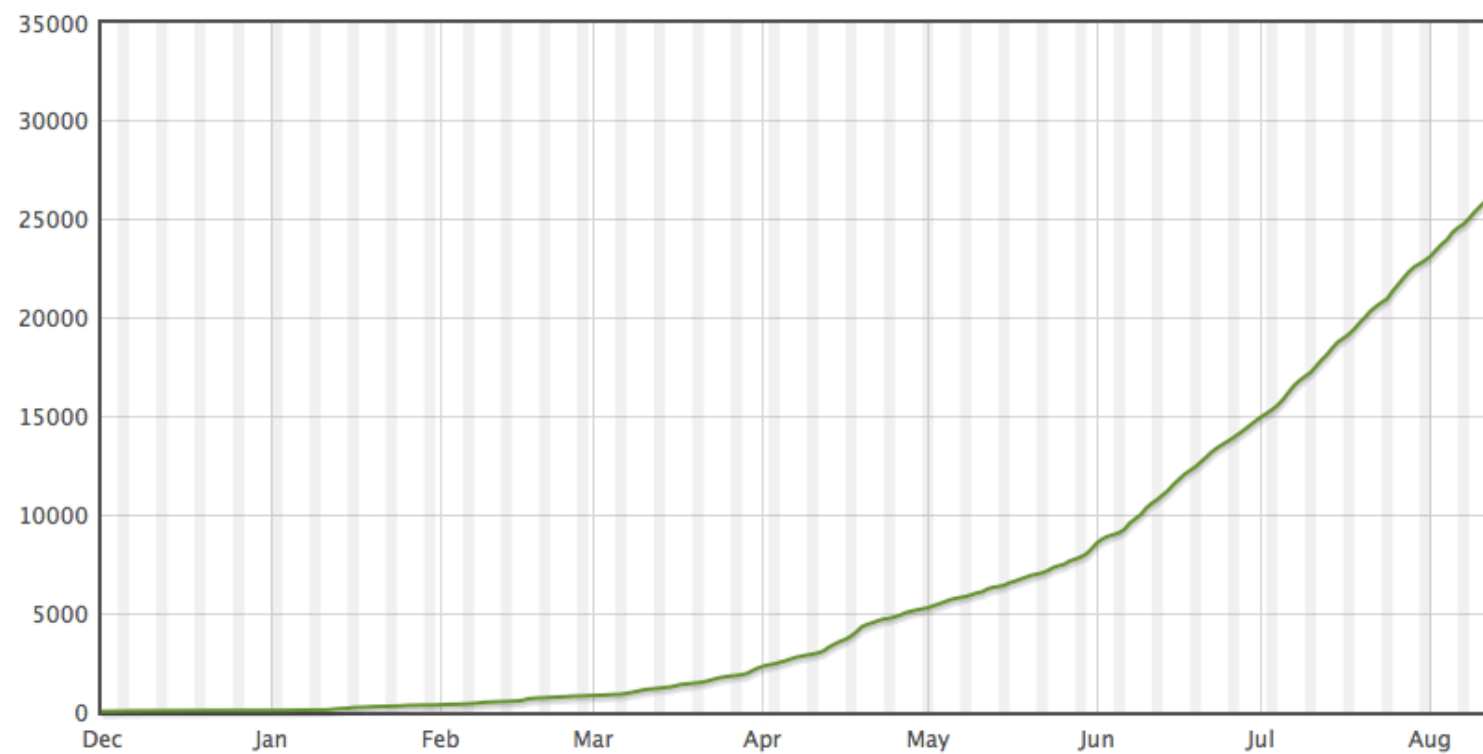
Take this Course

@andreasklinger

Tweets sent over time



Signups over time



Some graphs always go up.

**Vanity. Use it for the Press.
Not for your product.**

It's easy to improve conversions (of the wrong people)



It's easy to improve conversions (of the wrong people)



This is a real example.
Thank the Internet.

The same is true for funnels.

It's easy to optimize by pushing the wrong people forward.

Web Application Performance x
newrelic.com/#

Get your **FREE SHIRT** when you click here and use New Relic!

New Relic.

For a limited time only!

data nerd.

After creating your new account, make sure you **deploy New Relic agent** and we'll send you this free t-shirt!

Your account is just a few minutes away.

You'll soon be able to monitor, troubleshoot and tune your web apps instantly with New Relic.

Your Information	Company Info
<input type="text" value="First & Last Name"/>	<input type="text" value="Company Name"/>
<input type="text" value="Email"/>	<input type="text" value="Company Size"/>
<input type="password" value="Password"/>	<input type="text" value="Business Type"/>
<input type="text" value="Phone Number"/>	<input type="text" value="Number of Servers"/>
<input type="text" value="Postal Code"/>	Application(s): <input type="checkbox"/> JAVA <input type="checkbox"/> RUBY <input type="checkbox"/> PHP <input type="checkbox"/> .NET <input type="checkbox"/> PYTHON

By creating your account, you agree to our [terms of service](#).

Sign Up Now

Disclaimer: this is not a real example. btw newrelic is awesome ;)

The same is true for funnels.

It's easy to optimize by pushing the wrong people forward.

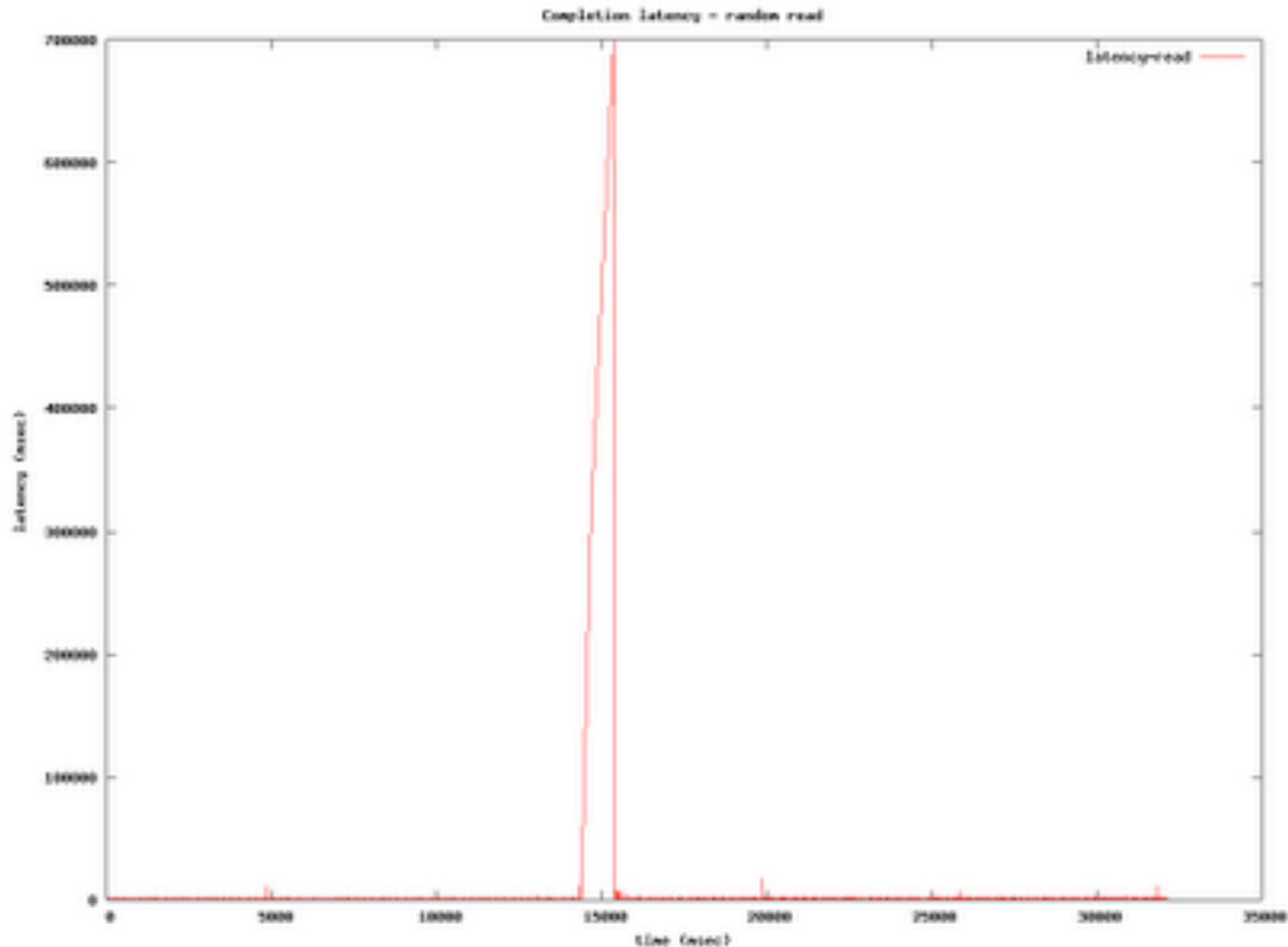
Disclaimer: this is not a real example. btw newrelic is awesome ;)



“Small Data”

Early Stage Product Metrics suck:

- We have the wrong product
- With the wrong communication
- Attracting the wrong targetgroup
- Who provide us too few datapoints



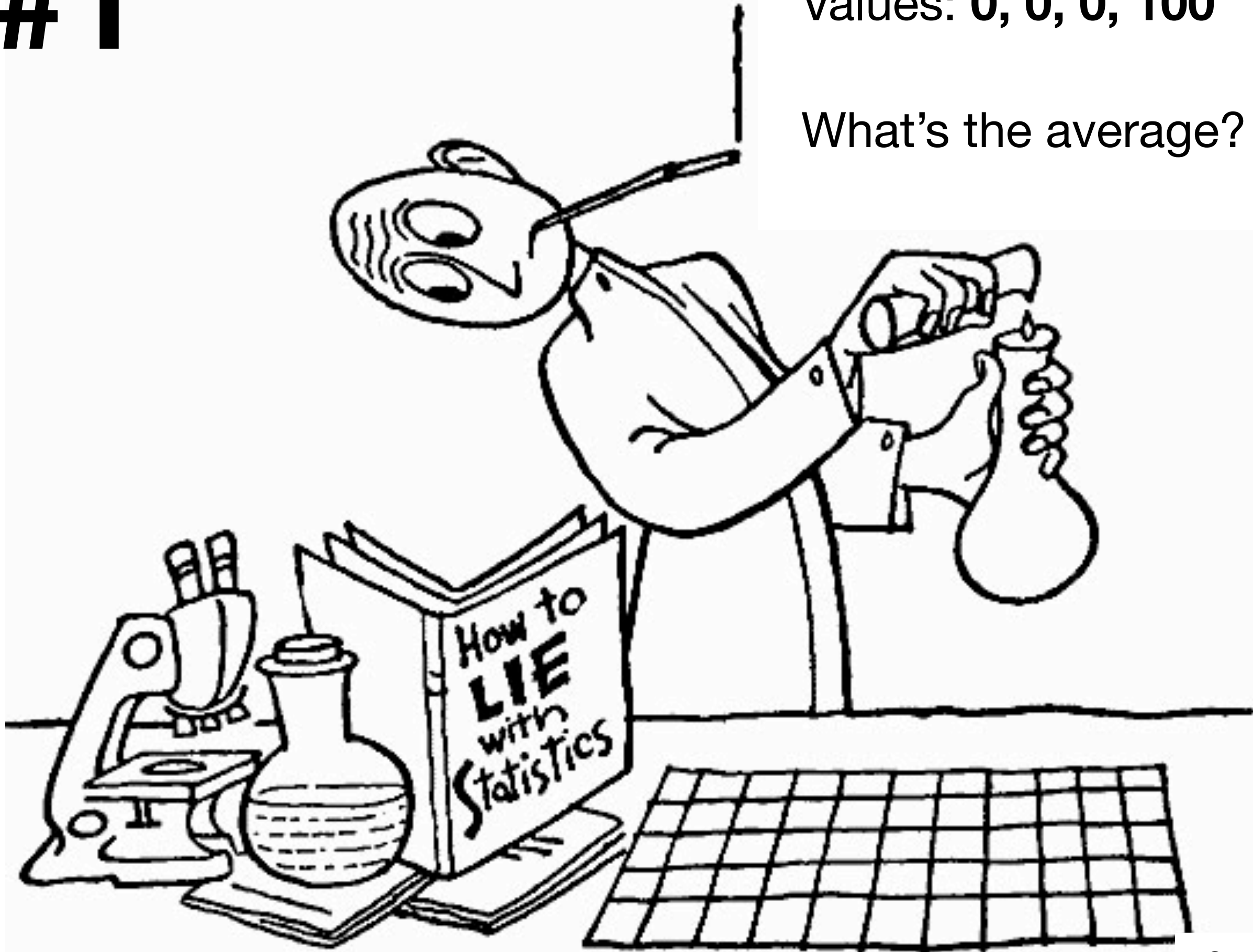
Early stage product metrics get easily affected by external traffic.

One of our main goals is to minimize that effect.

#1

Values: 0, 0, 0, 100

What's the average?

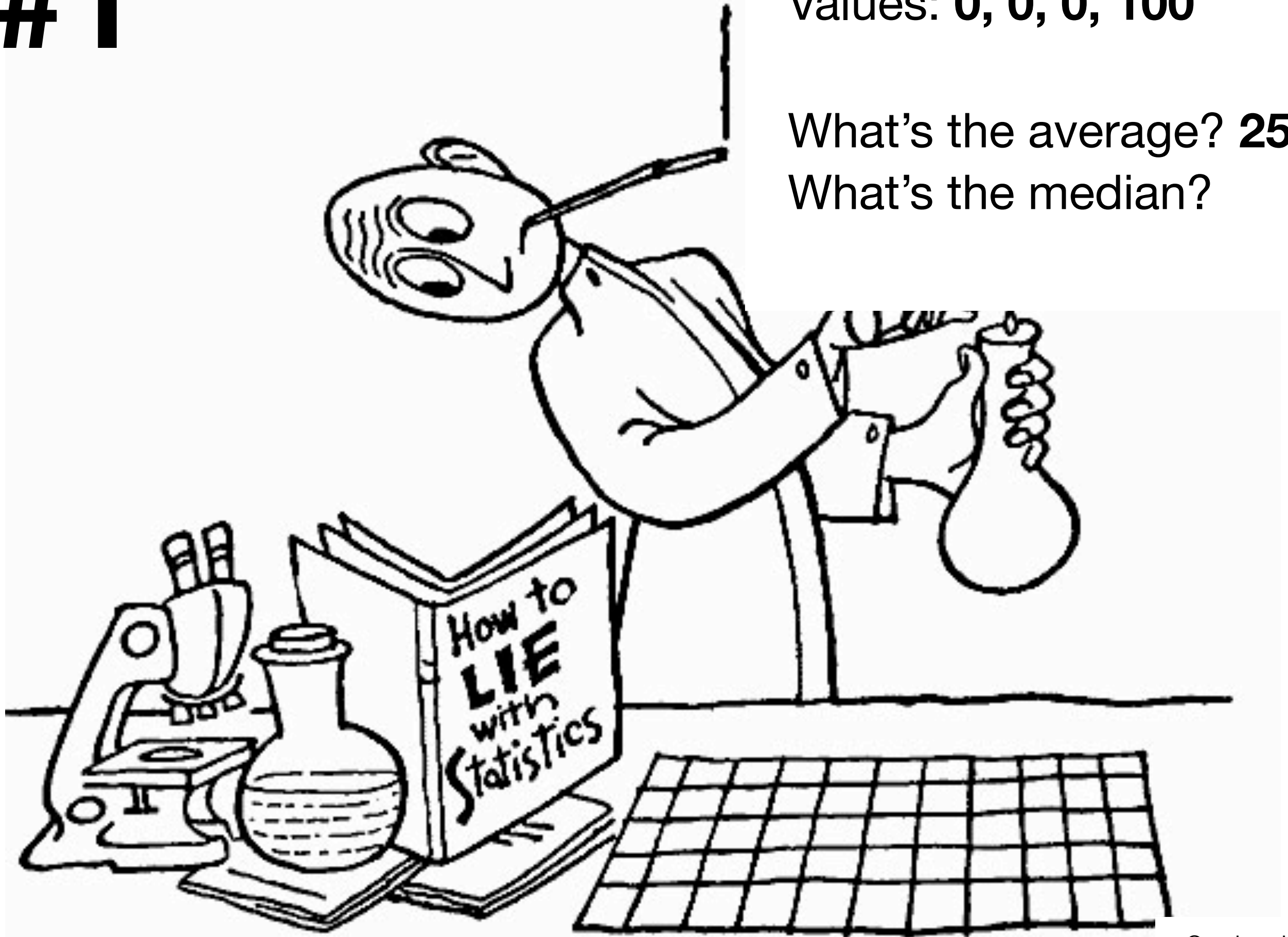


#1

Values: 0, 0, 0, 100

What's the average? **25**

What's the median?

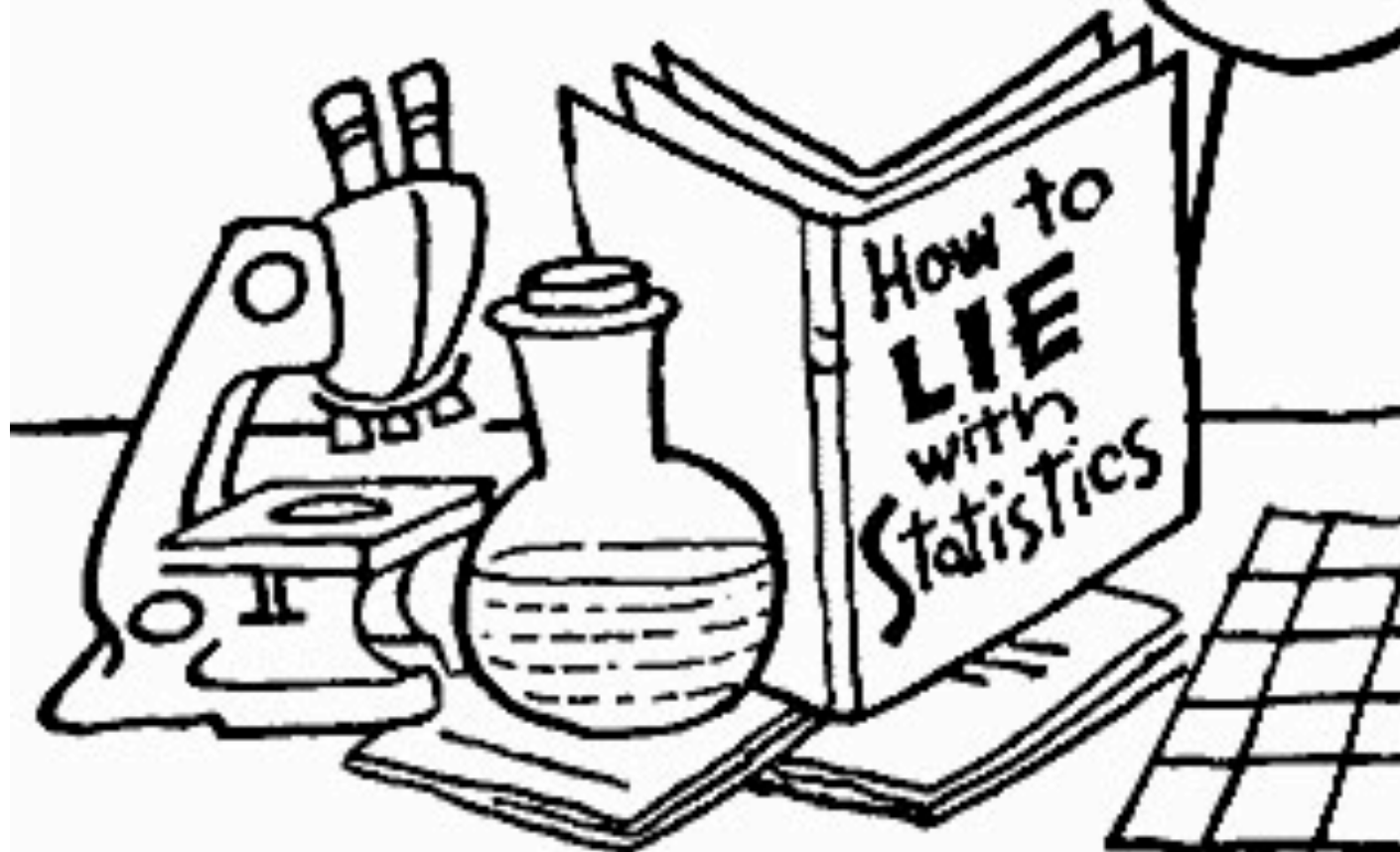


#1

Values: 0, 0, 0, 100

What's the average? **25**

What's the median? **0**



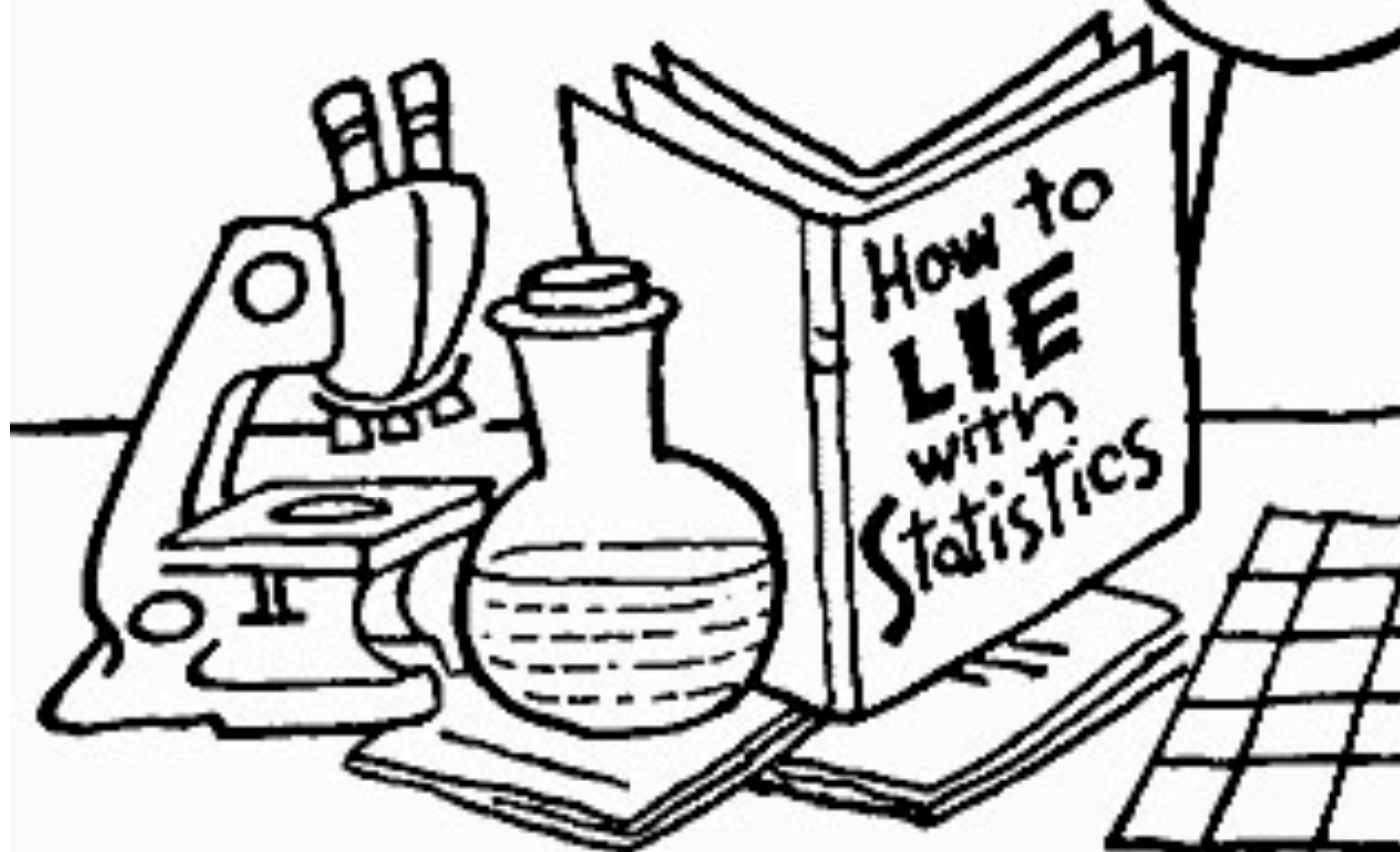
Eg. "Average Interactions"
can be Bollocks

#1

Values: 0, 0, 0, 100

What's the average? **25**

What's the median? **0**

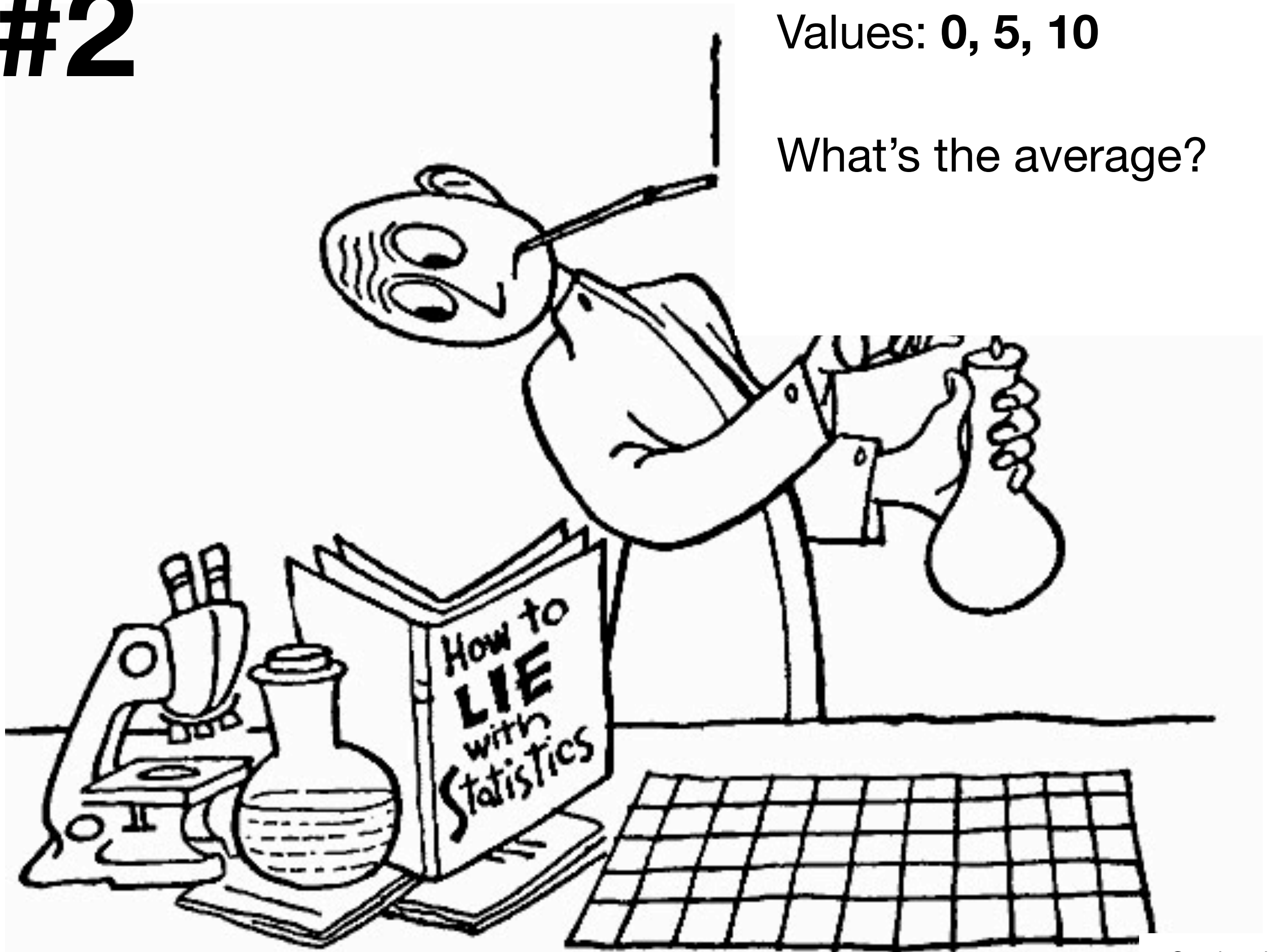


Eg. "Average Interactions"
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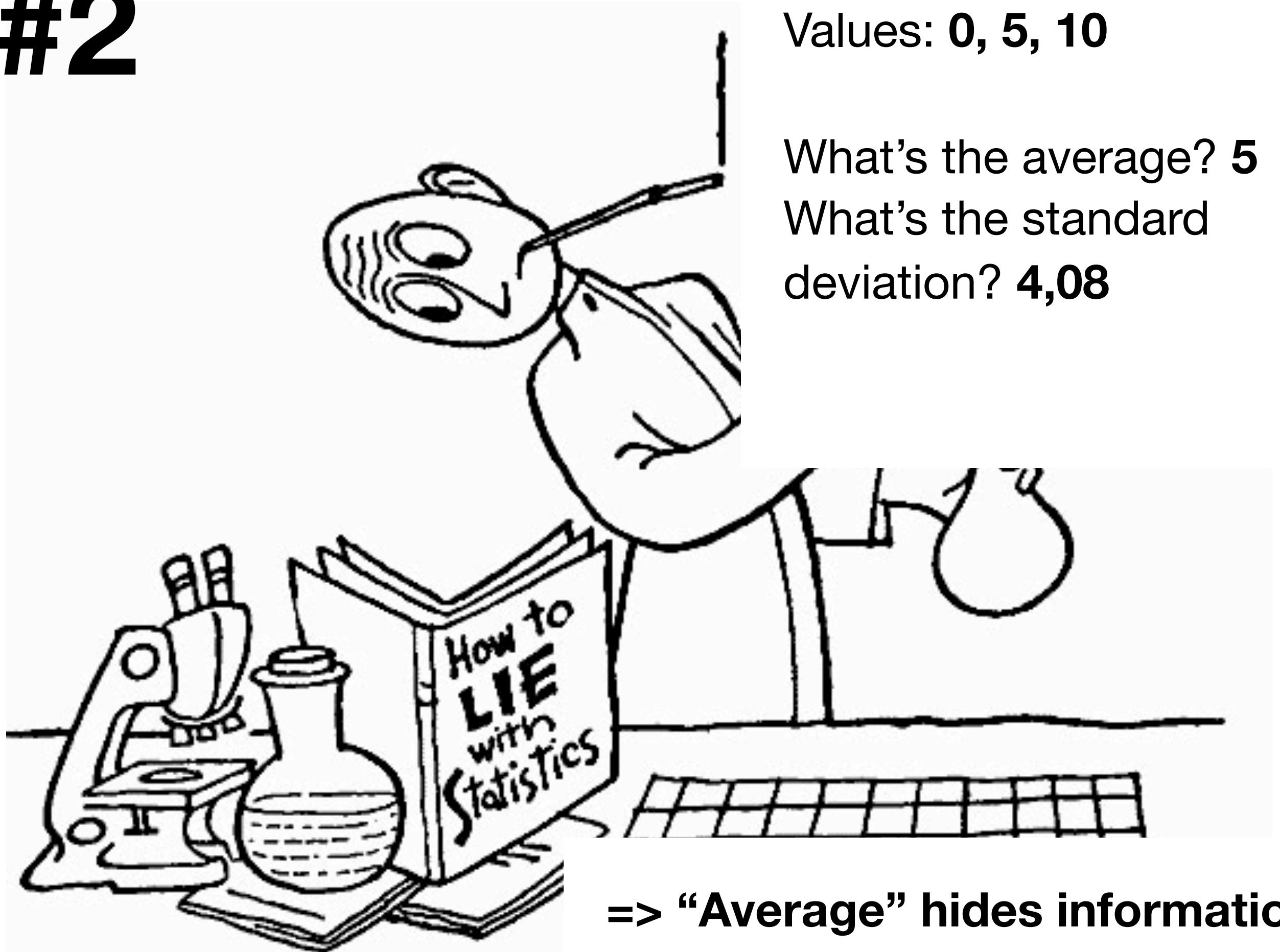
#2

Values: 0, 5, 10

What's the average?



#2



Values: **0, 5, 10**

What's the average? **5**

What's the standard deviation? **4,08**

=> **“Average” hides information.**

#3



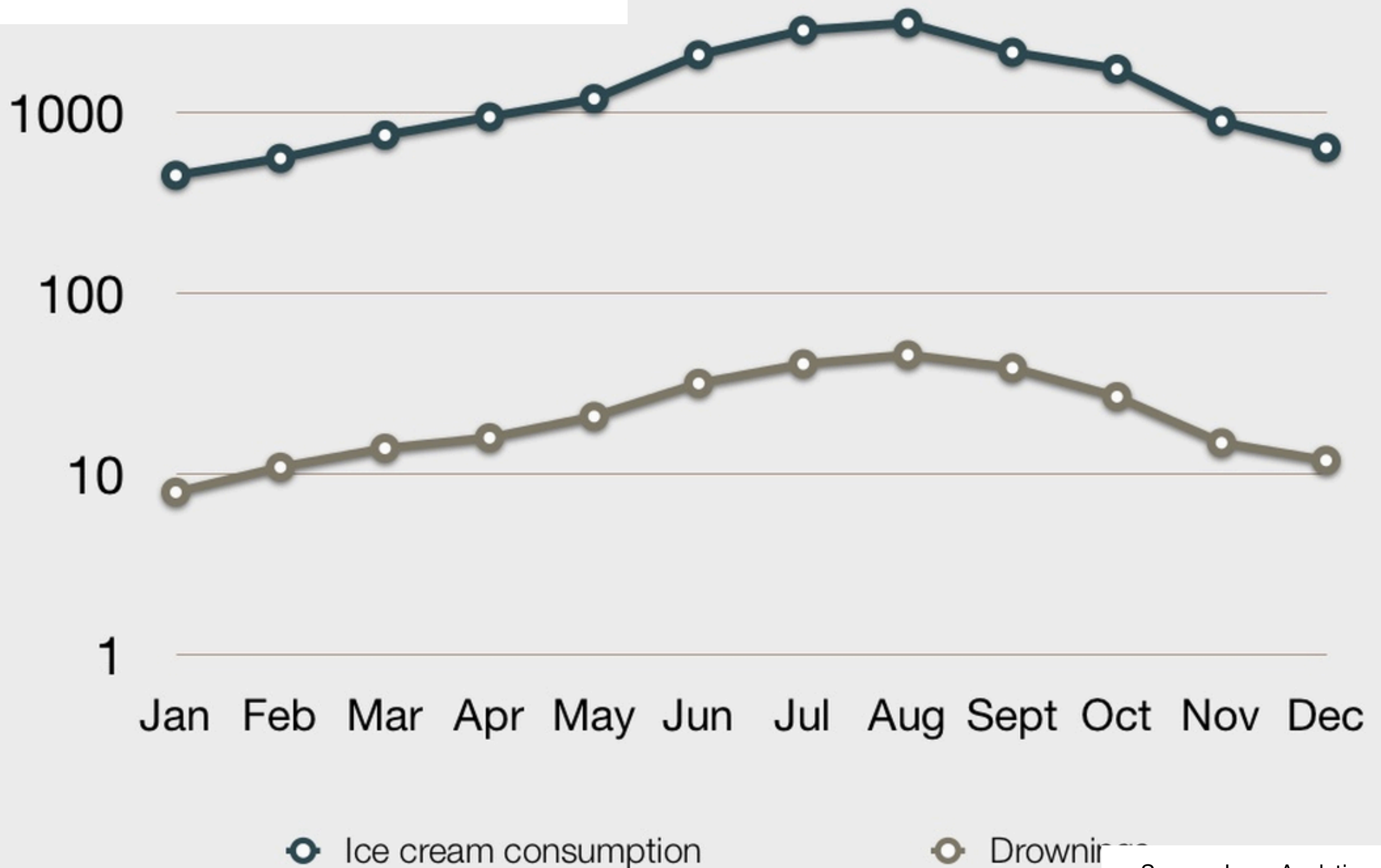
“This is not statistical significant.”

I don't care.

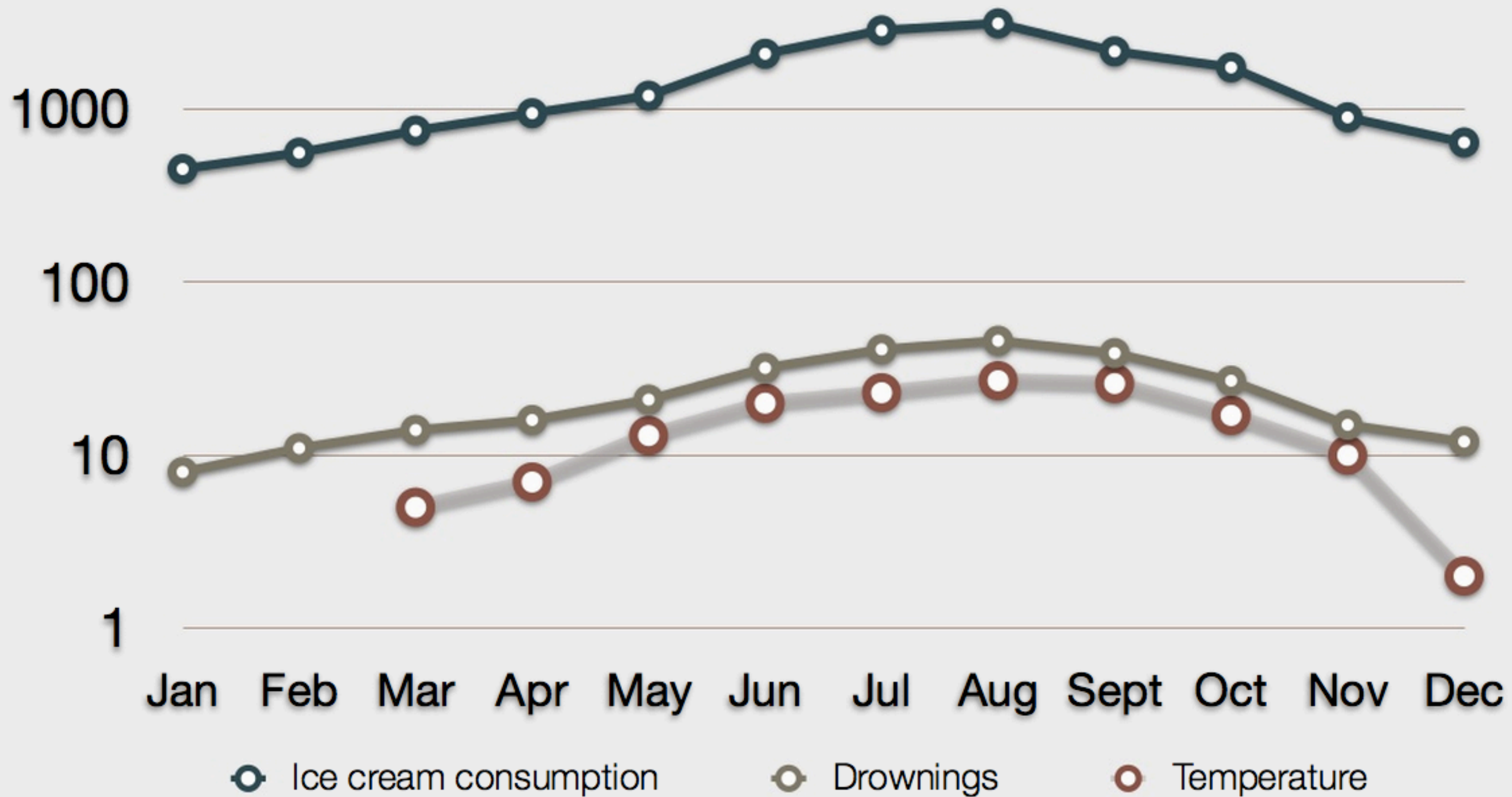
We are anyway playing dart in a dark room.

Let's try to get it as good as possible and use our intuition for the rest.

Correlation / Causality



Correlation / Causality



How can we use metrics?



How can we use metrics?

To Explore (Examples)

Investigate an assumption.

Look for causalities.

Validate customer feedback.

Validate internal opinions.

To Report (Examples)

Measure Progress.
(Accounting)

Measure Feature Impact.

See customer happiness/
health.

Hits

Page Views

Visits

Visitors

People

Views

Clicks

Conversions

Engagement

What do i measure?

TL;DR: In case of doubt, people.



What are good KPIs?

Linked to assumptions of your product (validation/falsify)



A black and white photograph showing a person in a long coat standing next to a large pile of rubble and debris. The person is positioned in the middle ground, leaning slightly forward. The foreground is dominated by a large, messy pile of broken bricks and stones. In the background, there is a brick wall and a dark doorway. The overall scene suggests a state of destruction or demolition.

What are good KPIs?

Rate or Ratio (0.X or %)



What are good KPIs?

Comparable (To your history (or a/b). Forget the market)

A black and white photograph showing a person in a long, dark coat standing next to a large pile of rubble and debris. The person is leaning over the pile, possibly sorting through it. The background is a brick wall with a dark doorway or window opening. The scene appears to be one of destruction or demolition.

What are good KPIs?

Explainable (If you don't get it it means nothing)



What are good KPIs?

Linked to assumptions of your product (validation/falsify)

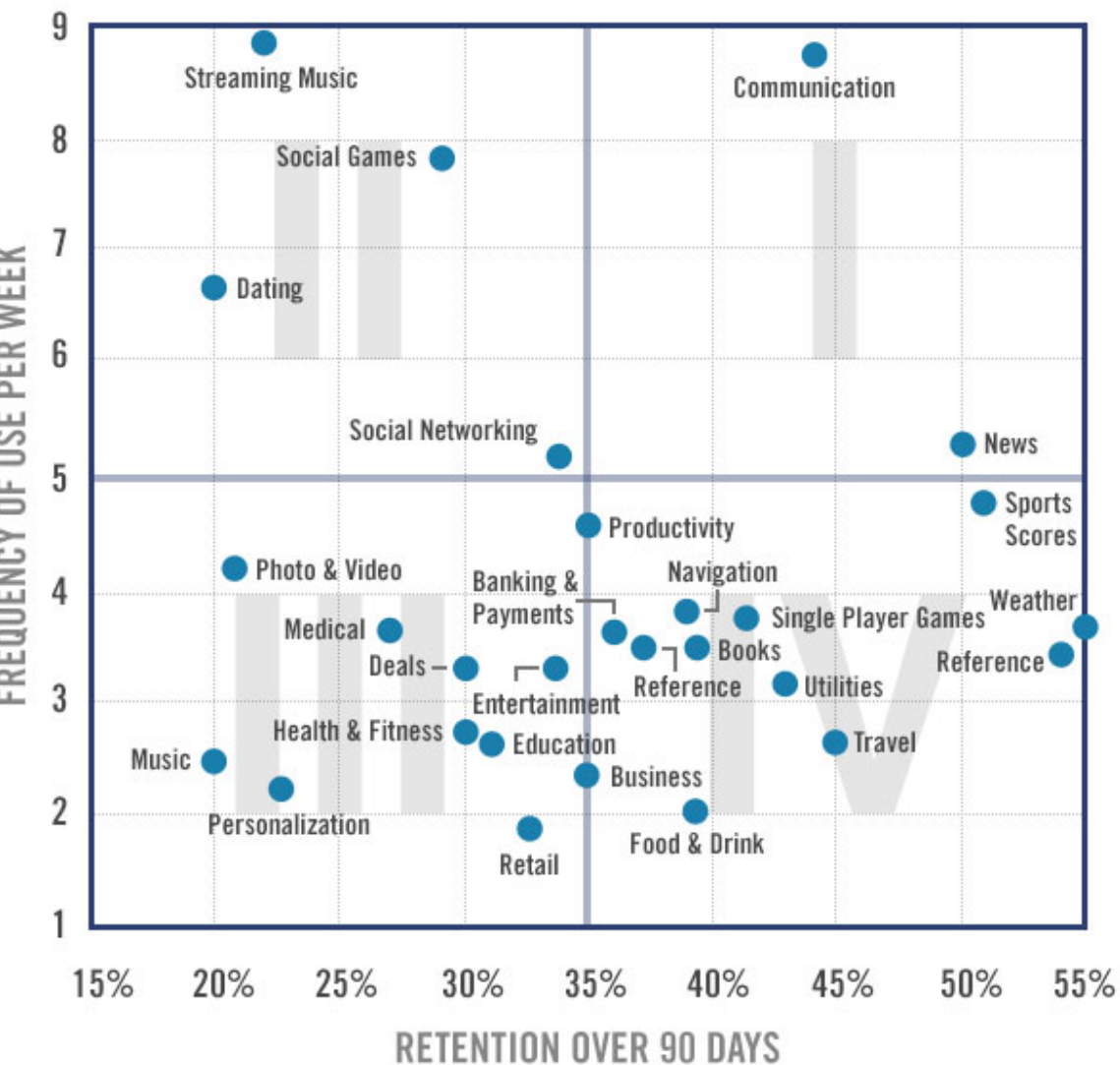
Rate or Ratio (0.X or %)

Comparable (To your history (or a/b). Forget the market)

Explainable (If you don't get it it means nothing)

“Industry Standards”

Loyalty by Application Category



How many of your customers buy a second time in 90 days?

Then you are in this mode

Your customers will buy from you

You are just like

Focus on

1-15%

Acquisition

Once

70% of retailers

Low CAC, high checkout

15-30%

Hybrid

2-2.5 per year

20% of retailers

Increasing returns

>30%

Loyalty

>2.5 per year

10% of retailers

Loyalty, inventory expansion

(Thanks to Kevin Hilstrom for this.)

Use industry averages as reality check. Not as benchmark.

- Usually very hard to get.
- Everyone defines stuff different.
- You might end up with another business model anyway.
- Compare yourself vs your history data.



Let's start.



Segment Users into Cohorts

Cohorts = Groups of people that share attributes.

Segment Users into Cohorts

	Like it
People	23%

Segment Users into Cohorts

	Like it
People 0-25	3%
People 26-50	4%
People 51-75	65%

Segment Users into Cohorts

	Average Spending
Jan	€5
Feb	€4.5
Mar	€5
Apr	€4.25
May	€4.5
...	...

Averages can hide patterns.

Segment Users into Cohorts

Month Lifecycle

Registration Month	1	2	3	4	5
Jan	€5	€3	€2	€1	€0.5
Feb	€6	€4	€2	€1	
Mar	€7	€6	€5		
Apr	€8	€7			
May	€9				
...	...				

**Insight: Users spend less over time in average.
We still don't know if they spend less, or if less people spend at all.**



Apply a framework: AARRR

Acquisition

Visit / Signup / etc

Activation

Use of core feature

Retention

Come + use again

Referral

Invite + Signup

Revenue

\$\$\$ Earned

Example: Blossom.io

Kanban Project Management Tool

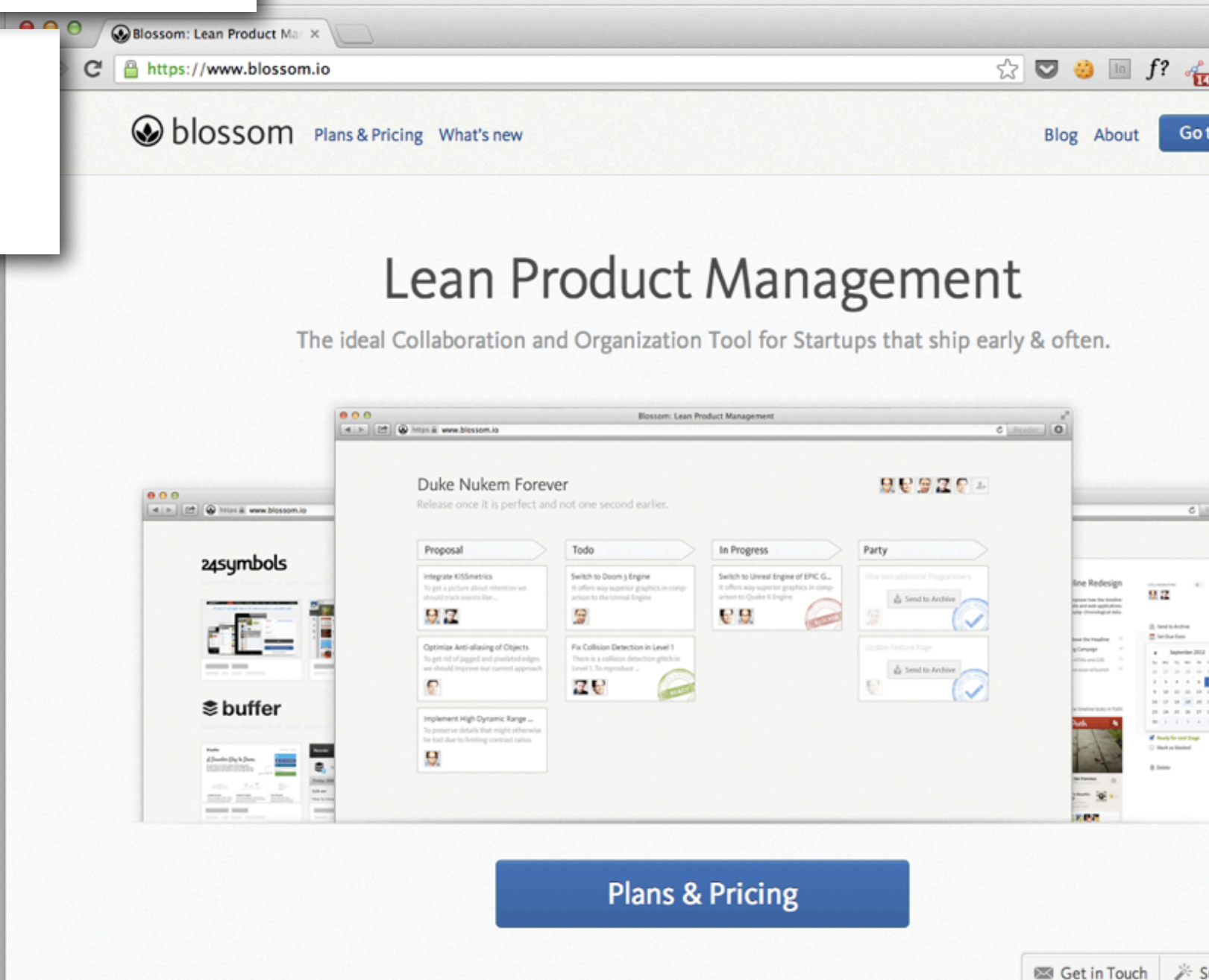
(people who) registered an account
Acquisition

created a card
Activation

moved a card
Retention

invited team members
Referral

have upgraded
Revenue



Example: Photoapp

(people who) registered an account

Acquisition

created first photo

Activation

opened app twice in period

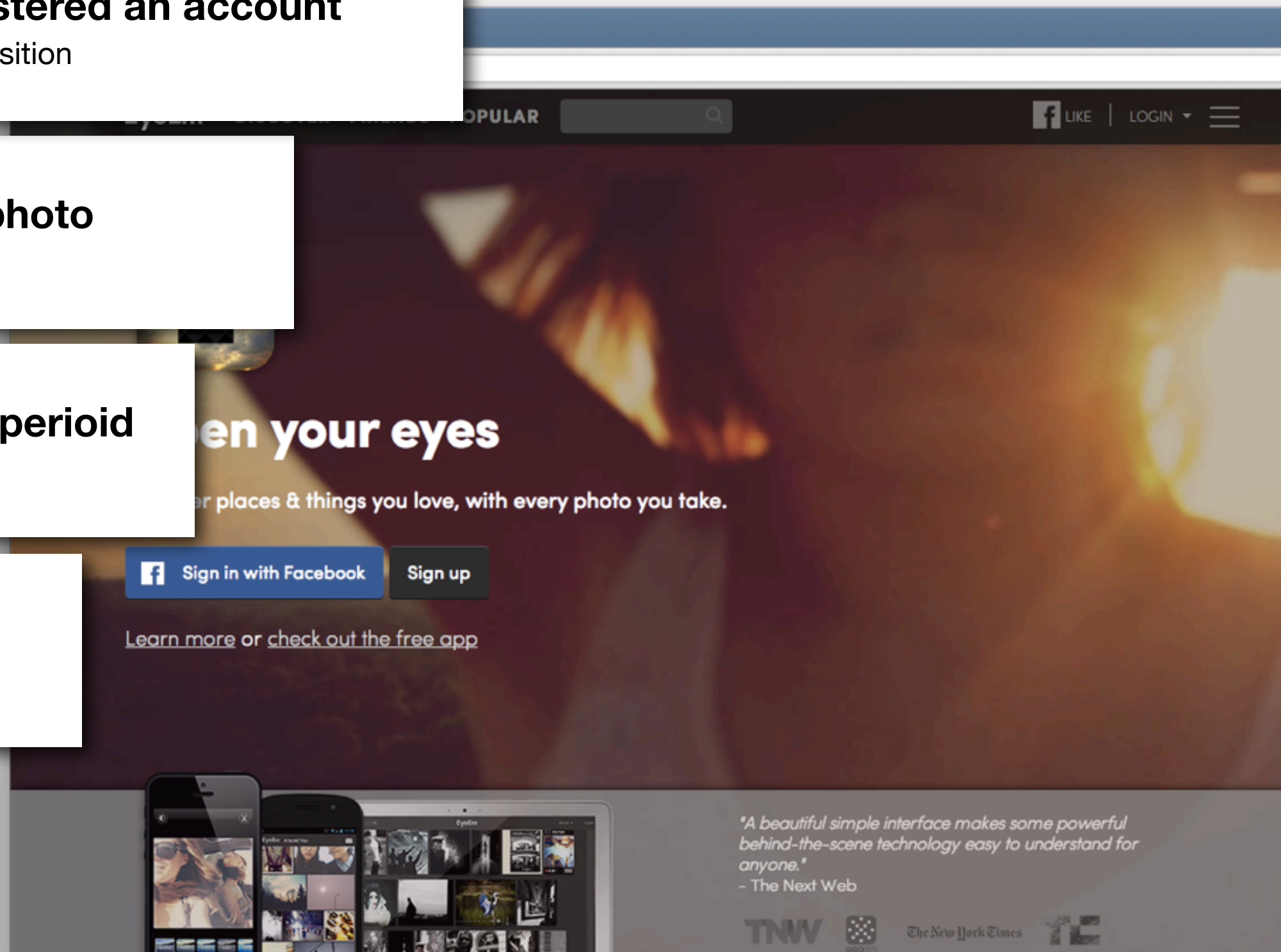
Retention

shared photo to fb

Referral

??? (exit?)


Revenue



Example: Photoapp

ARRR

<i>acquisition</i>	<i>activation</i>	<i>retention</i>	<i>referral</i>	<i>revenue</i>
registration	first photo	twice a month	share	...
8750	65%	23%	9%	



Example: Photoapp

Cohorts based on registration week AARRR

WK	acquisition	activation	retention	referral	revenue
Photoapp	registration	first photo	twice a month	share	...
I	400	62,5%	25%	10%	
2	575	65%	23%	9%	
3	350	64%	26%	4%	
...	

Acquisition
Visit / Signup / etc

Activation
Use of core feature

Which Metrics to focus on?

Retention
Come + use again

Referral
Invite + Signup

Revenue
\$\$\$ Earned

Acquisition
Visit / Signup / etc

Activation
Use of core feature

Retention
Come + use again

Referral
Invite + Signup

Revenue
\$\$\$ Earned

Short Answer:

Focus on Retention

Because
Retention = $f(\text{user_happiness})$



Because
Retention = $f(\text{user_happiness})$

**Not only “visited again”.
But “did core activity X again”**



Acquisition
Visit / Signup / etc

Activation
Use of core feature

Come + use again

Referral
Invite + Signup

Revenue
\$\$\$ Earned

Long answer - It depends on two things:

Phase of company

Type of Product

Engine of Growth

#1 Phase

Acquisition
Visit / Signup / etc

	E-commerce	2-sided market	SaaS	Mobile app	User-gen content	Media
Empathy	Interviews; qualitative results; quantitative scoring; surveys					
Stickiness	Loyalty, conversion	Inventory, listings	Engagement, churn	Downloads, churn, virality	Content, spam	Traffic, visits, returns
Virality	CAC, shares, reactivation	SEM, sharing	Inherent virality, CAC	WoM, app ratings, CAC	Invites, sharing	Content virality, SEM
Revenue	(Money from transactions) Transaction, CLV	(Money from transactions) Transactions, commission	(Money from active users) Upselling, CAC, CLV	(Money from active users) CLV, ARPDAU	(Money from ad clicks) Ads, donations	(Money from ad clicks) CPE, affiliate %, eyeballs
Scale	Affiliates, white-label	Other verticals	API, magic #, mktplace	Spinoffs, publishers	Analytics, user data	Syndication, licenses

#2 Engine of Growth

Acquisition



Paid

Make more money on a customer than you spend, to buy new ones. Eg. Saas

Viral

A Users brings more than one new user.
Eg. typical interactive ad-campaigns

Sticky

Keep your userbase to improve your quality.
Eg. Communities

Revenue

\$\$\$ Earned

#2 Type of Company (linked to Engine of Growth)

Saas

Build a better product

Social Network/Community

“(subjective) Critical Mass”

Marketplace

Get the right sellers

and many more...

Acquisition

Visit / Signu

Activat

Use of core

Retent

come + use

Refer

Invite + Si

Reven

\$\$\$ Earned



Acquisition
Visit / Signup / etc

Activation
Use of core feature

Retention
Come + use again

Referral
Invite + Signup

Revenue
\$\$\$ Earned

Short Answer:

Focus on Retention

Signed Up → Retained

Jun 24 – 30 Retention Funnel

Retention Interval Chart

Engagement Score Chart

Weekly Cohort	People	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8
22 Apr	1079	19.6%	13.2%	10.0%	8.2%	7.5%	5.3%	5.7%
29 Apr	1027	19.9%	13.1%	10.1%	8.1%	6.3%	5.1%	4.8%
06 May	1253	18.9%	12.3%	10.0%	8.7%	6.1%	4.2%	4.6%
13 May	1087	19.0%	12.5%	11.1%	6.9%	5.1%	4.0%	3.9%
20 May	1065	18.8%	13.1%	9.3%	6.9%	5.1%	4.6%	4.8%
27 May	1019	18.3%	9.7%	8.5%	4.8%	5.5%	4.5%	4.4%
03 Jun	1082	18.7%	12.5%	8.0%	7.0%	6.0%	5.2%	4.3%
10 Jun	946	17.1%	11.2%	8.1%	7.0%	5.2%	3.9%	4.1%
17 Jun	839	16.9%	17.8%	8.7%	8.7%	5.2%	3.9%	4.1%
24 Jun	1000	18.9%	14.2%	8.7%	8.7%	5.2%	3.9%	4.1%
01 Jul	935	19.9%	11.1%	8.7%	2.1%	–	–	–
08 Jul	1094	20.7%	13.3%	3.7%	–	–	–	–
15 Jul	1070	17.8%	3.8%	–	–	–	–	–
22 Jul	947	5.9%	–	–	–	–	–	–
29 Jul	563	–	–	–	–	–	–	–

ARE NEW FEATURES
INCREASING RETENTION?

Retention Matrix

Stickiness over lifetime.

Acquisition
Visit / Signup / etc

Activation
Use of core feature

Retention
Come + use again

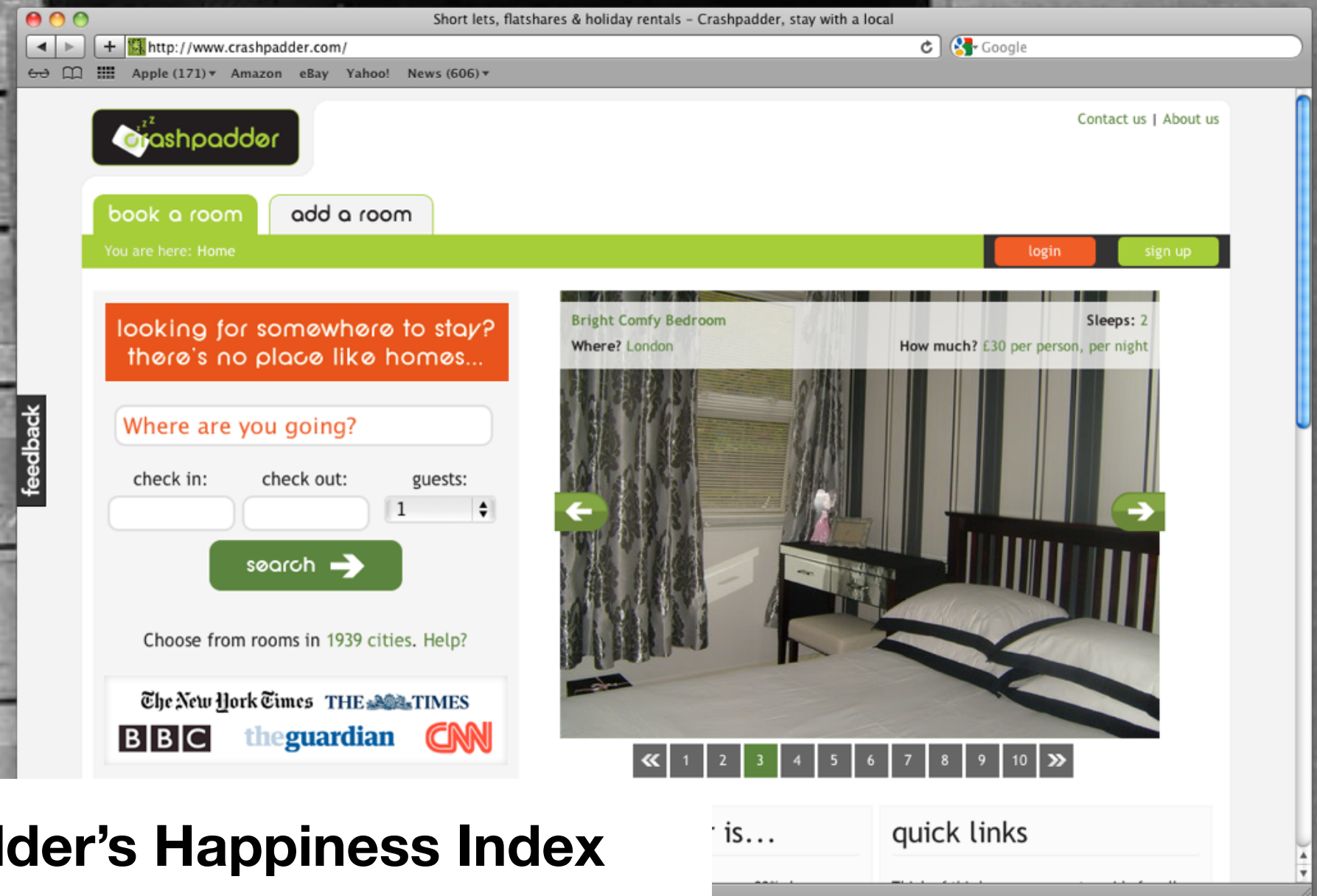
Referral
Invite + Signup

Revenue
\$\$\$ Earned

Short Answer:

Focus on Retention

**Eg. Did core-action X
times in period.**



Dig deeper: Crashpadder's Happiness Index

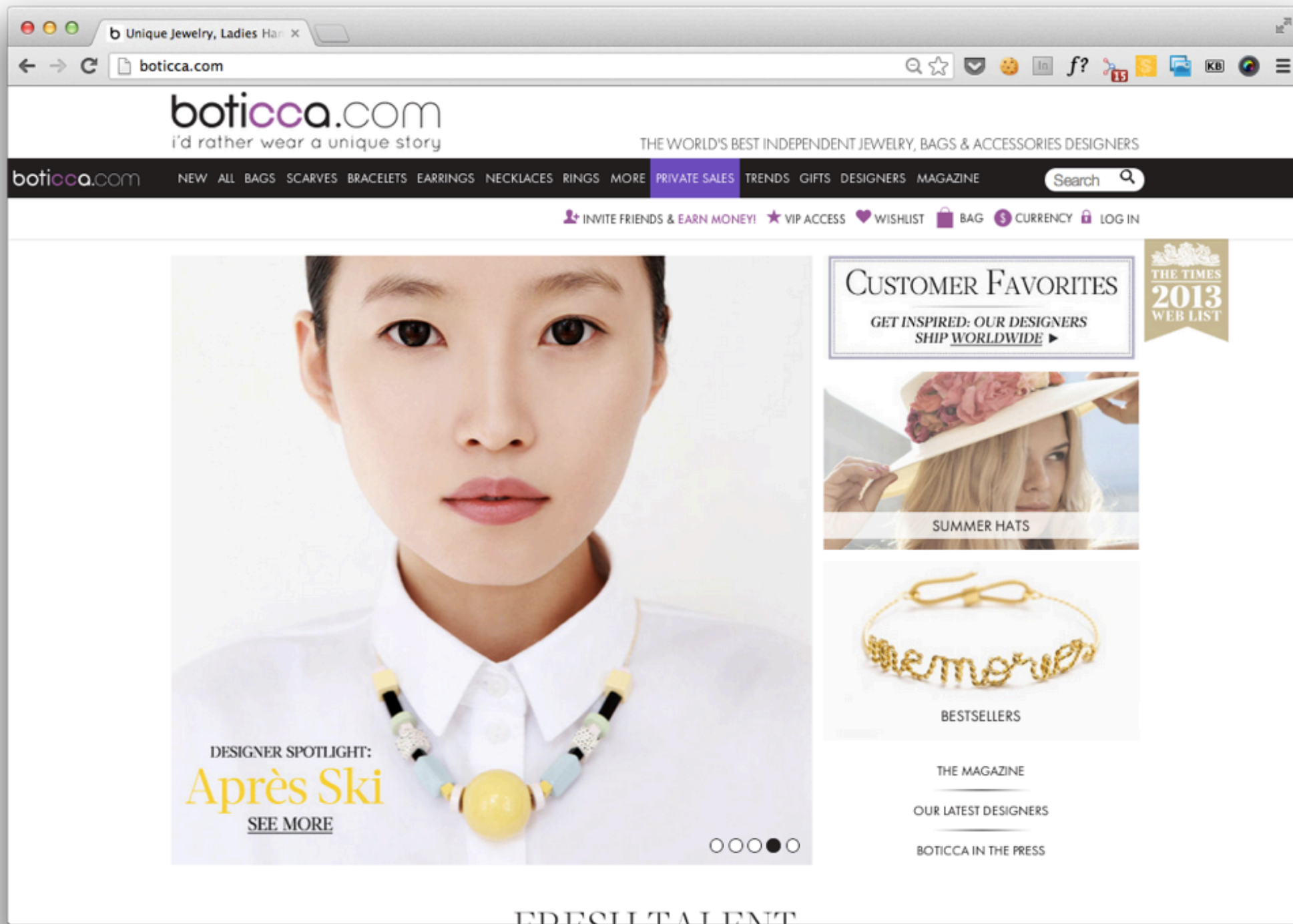
e.g. Weighted sum over core activities by hosts.
Cohorts by cities and time.

= Health/Happiness Dashboard

Marketplaces / 2-sided models



Marketplaces / 2-sided models



Marketplaces

/ 2-sided models

Amazon Approach:

- 1) Create loads of inventory for longtail search
- 2) Create demand
- 3) Have shitloads of money.
- 4) Wait and win.

Boticca (aka Startup) Approach:

- 1) Focus on one niche Targetgroup
- 2) Create “enough” inventory with very few sellers
- 3) Create demand
- 4) Create more demand
- 5) Add a few more sellers.
Repeat. Pray.

How to solve the Chicken and Egg Problem TL;DR:

You need very few but very good and happy chickens to get a lot of eggs.

Btw: If the chickens don't come by themselves, buy them. Uber paid 30\$/h to the first drivers. Ignore the "minor chickens", they come anyway.



Example Mobile App: Pusher2000

Trainer2peer pressure sport app (prelaunch “beta”).

Rev channel: Trainers pay monthly fee.

Two sided => Segment AARRR for both sides (trainer/user)

Marketplace => Value = Transactions / Supplier

Social Software => DAU/MAU to see if activated **users** stay active

Chicken/Egg => You need a few very happy chickens for loads of eggs.

Activated User: More than two training sessions

Week/Week retention to see if public launch makes sense

Optimize retention: Interviews with Users that left

Measure Trainer Happiness Index

Pushups / User / Week to see if the core assumption (People will do more pushups) is valid



Groupwork

- What stage are you in?

Empathy

Stickiness

Virality

Revenue

Scale





Groupwork

- Define your AARRRR Metrics!

Acquisition, Activation, Retention, Referral, Revenue

One KPI each. (*e.g. User who xxxx*)





Groupwork

- What's your current core metric.





Show & Tell.



@andreasklinger



The dirty side of metrics.

Metrics need to hurt



Metrics need to hurt

A Startup should always only focus on one core metric to optimize.

Your dashboard should only show metrics you are ashamed of.



Metrics need to hurt

Have two dashboards (example bufferApp):

A actionable board to work on your product
(eg. % people buffering tweets in week 2)

A vanity board one to show to investors and tell to the press
(eg. total amount of tweets buffered)



Metrics need to hurt

If you are not ashamed about the KPIs in your product dashboard than something is wrong.

Either you focus on the wrong KPIs.
OR you do not drill deep enough.

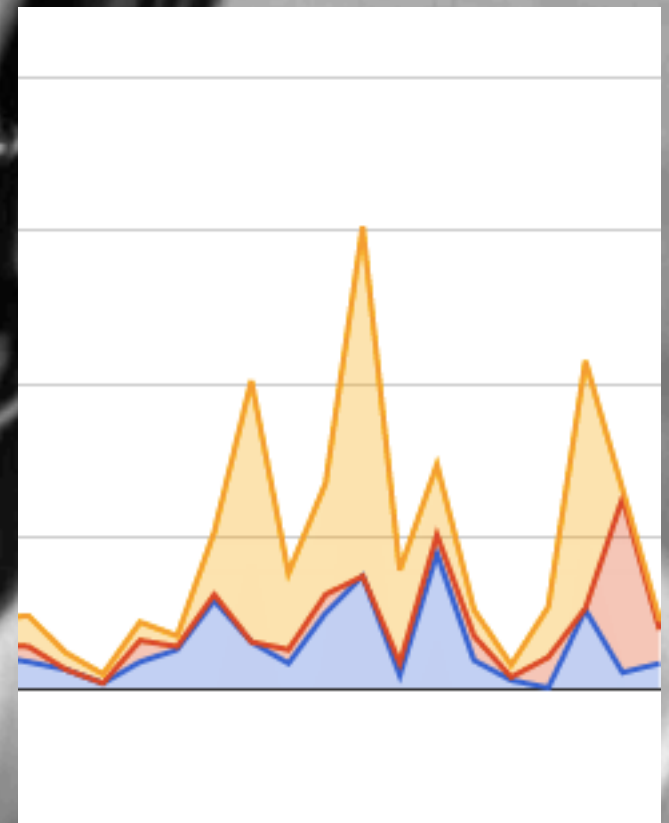
Metrics need to hurt

Example: Garmz/LOOKK

Great Numbers:
90% activation (activation = vote)

But they only voted for friends
instead of actually using the platform.

We drilled (not far) deeper:
Activation = Vote for 2 different designers. Boom. Pain.
Metrics need to hurt.



Let's talk cash.



Let's talk cash: Life Time Value (LTV)

Life Time = 1/Churn

Eg. $1 / 0.08 = 12.5$ months

Average Revenue Per User (ARPU)

= Revenue / Amount of Users

Eg. $20.000\text{€} / 1500 = 13.33\text{€}$

LTV = ARPU * LifeTime

= $13.33\text{€} * 12.5 = 166.6666$

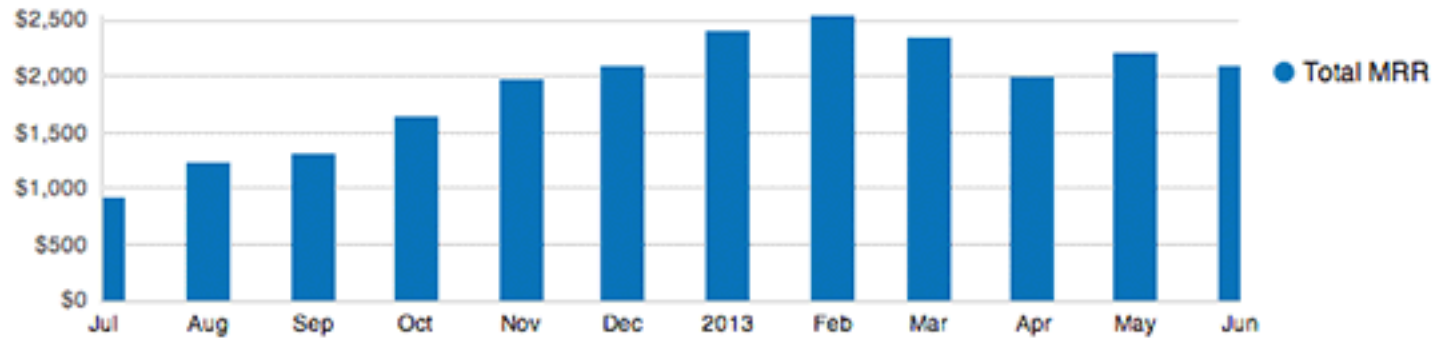
Let's talk cash: Customer Acquisition Costs

**CAC = Total Acquisition Costs this month /
New Customers this month**

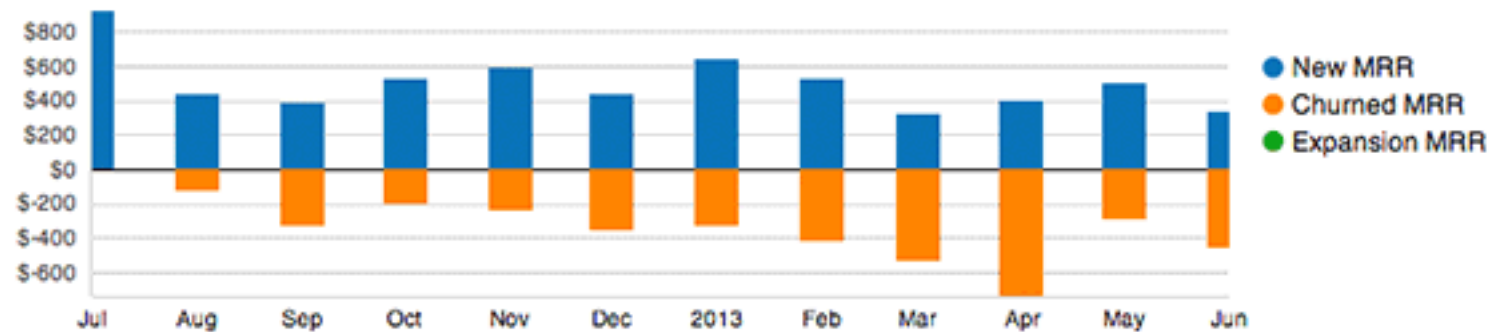
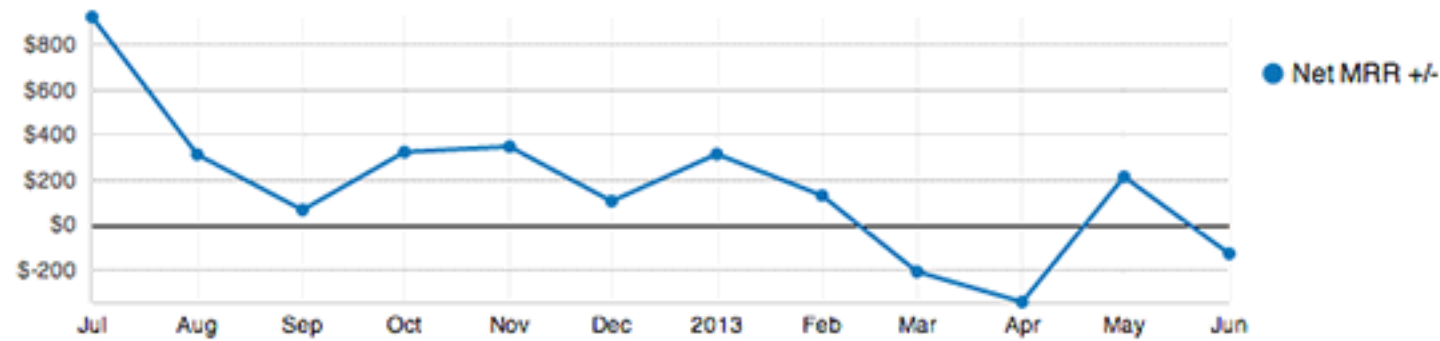
Goal:

CAC < LTV even better: 2-3xCAC < LTV

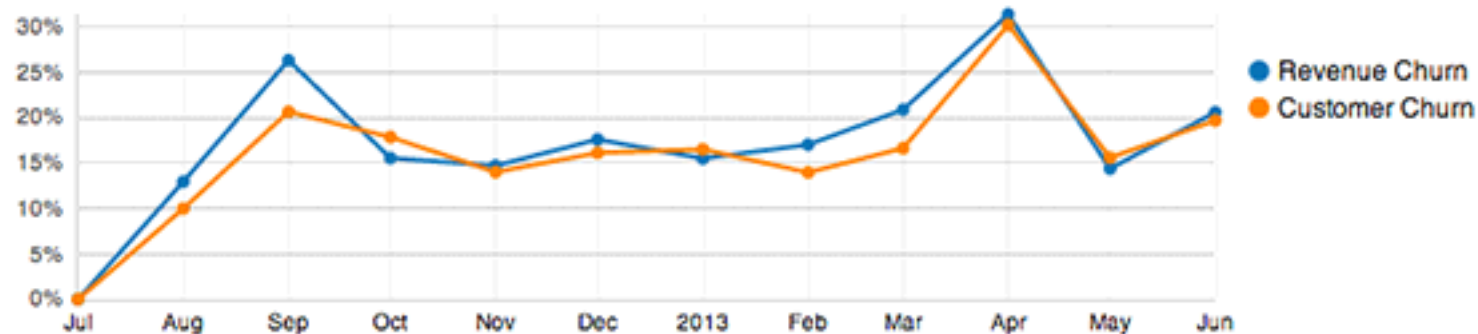
Monthly Recurring Revenue (MRR)



Net Change in Monthly Recurring Revenue



Monthly Churn



Monitor Revenue

MRR Monthly Recurring Revenue

Revenue Churn & Qty Churn


Source: www.usercycle.com

But how to make more money?

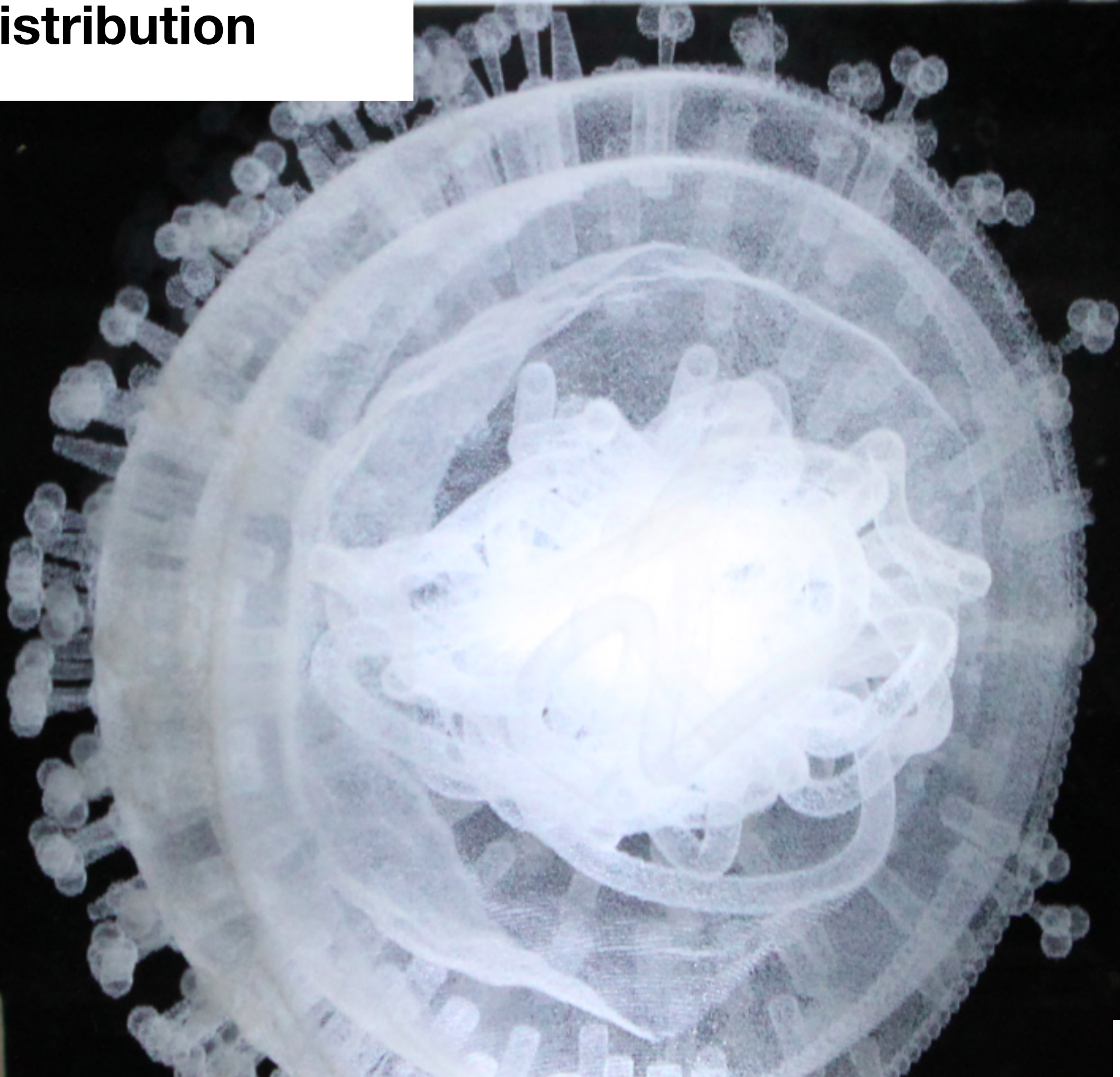


Big wins are often cheap.

Spend Less — likely not worth it
hard — More customers
Charge more
easy (do it!)

A green line graph showing an upward trend. The line starts at the bottom left and curves upwards towards the top right, representing a positive growth or trend over time.

Viral Distribution



Viral Distribution



3 kinds of virality

Product Inherent

A function of use. Eg. Dropbox sharing

Product Artificial

Added to support behaviour. E.g.
Reward systems

Word of Mouth

Function of customer satisfaction.

Viral Distribution

Invitation Rate = Invited people / inviters
eg. 1250 users invited 2000 people = 1.6

Acceptance Rate = Invited Signed-up / Invited total
eg. out of the 2000 people 580 signed up = 0.29

Viral Coefficient = Invitation Rate * Acceptance Rate
eg. $1.6 * 0.29 = 0.464$
(every customer will bring half a customer additionally)

Viral Distribution



Important #1:

Unless your Growth Engine is Viral,
don't focus early on Viral Factors.
Focus on retention/stickyness.

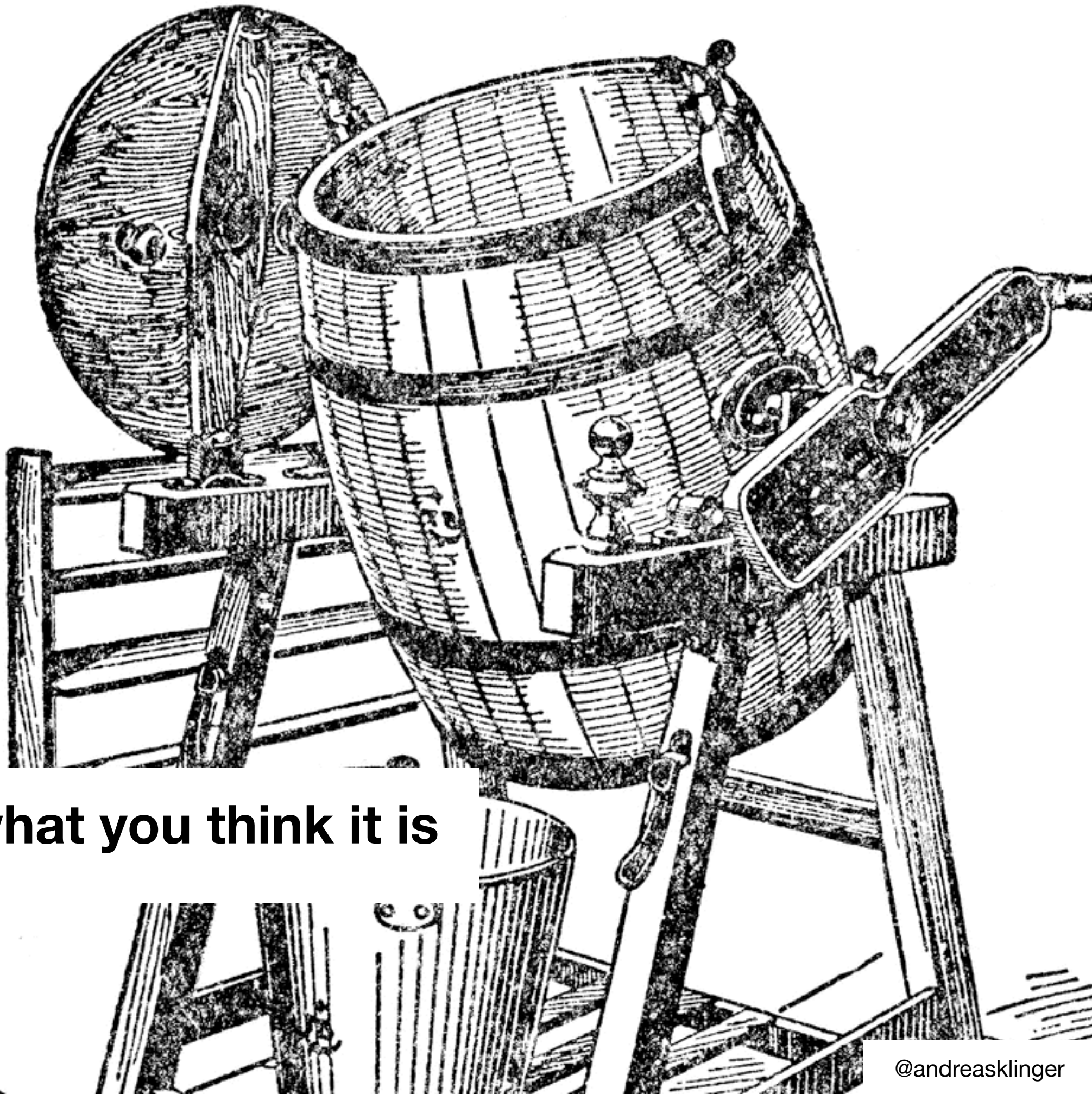
Important #2: Viral Cycle Time (time between recv
invite and sending invite) is extremely important.

eg. $K = 2$

Cycle Time: 2 days \Rightarrow 20 days = 20.470 users

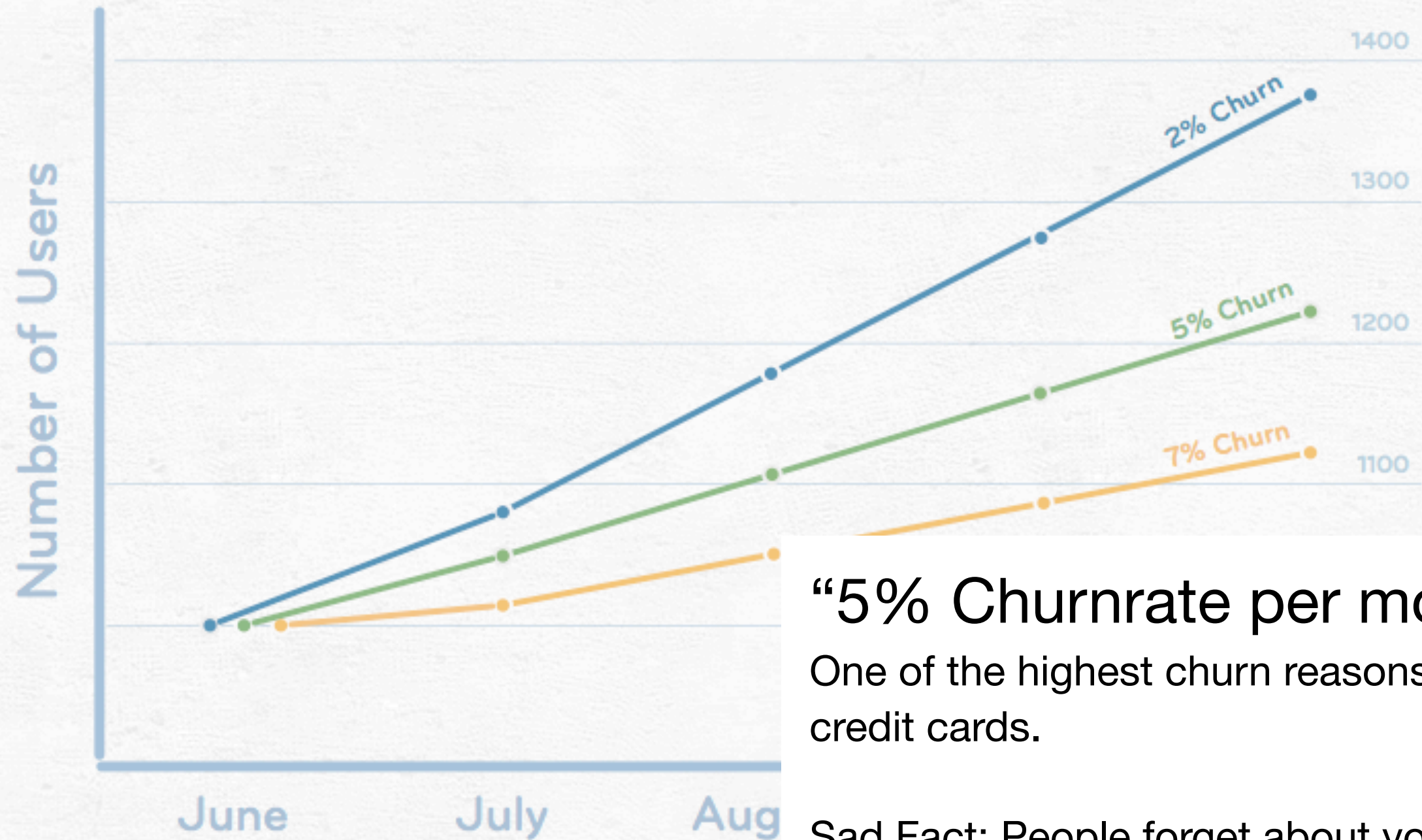
Cycle Time: 1 day \Rightarrow 20 days = 20mio users

Source: <http://www.forentrepreneurs.com/lessons-learnt-viral-marketing/>



Churn is not what you think it is

Churn is not what you think it is

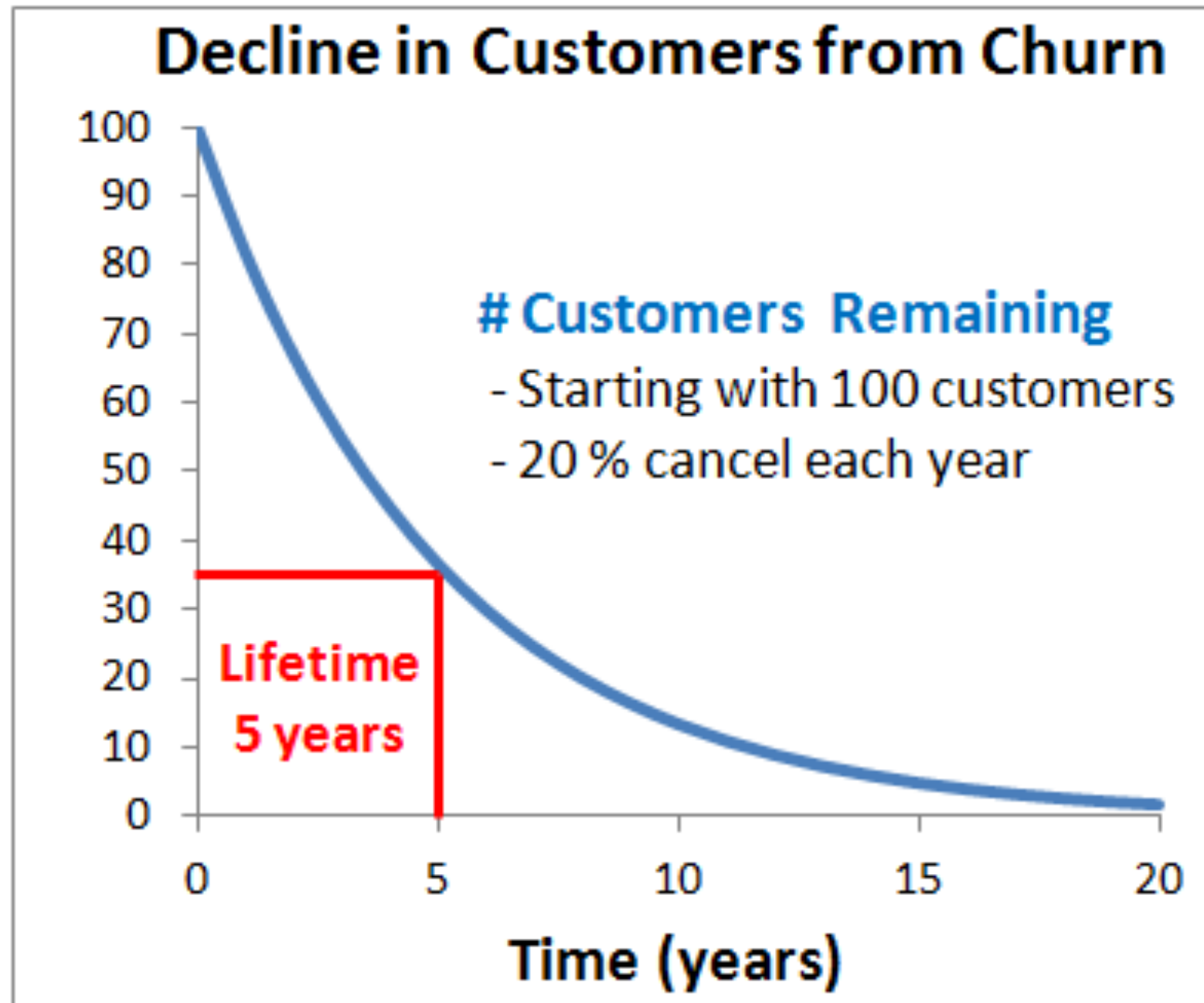


“5% Churnrate per month”

One of the highest churn reasons is expired credit cards.

Sad Fact: People forget about you.

Churn is not what you think it is

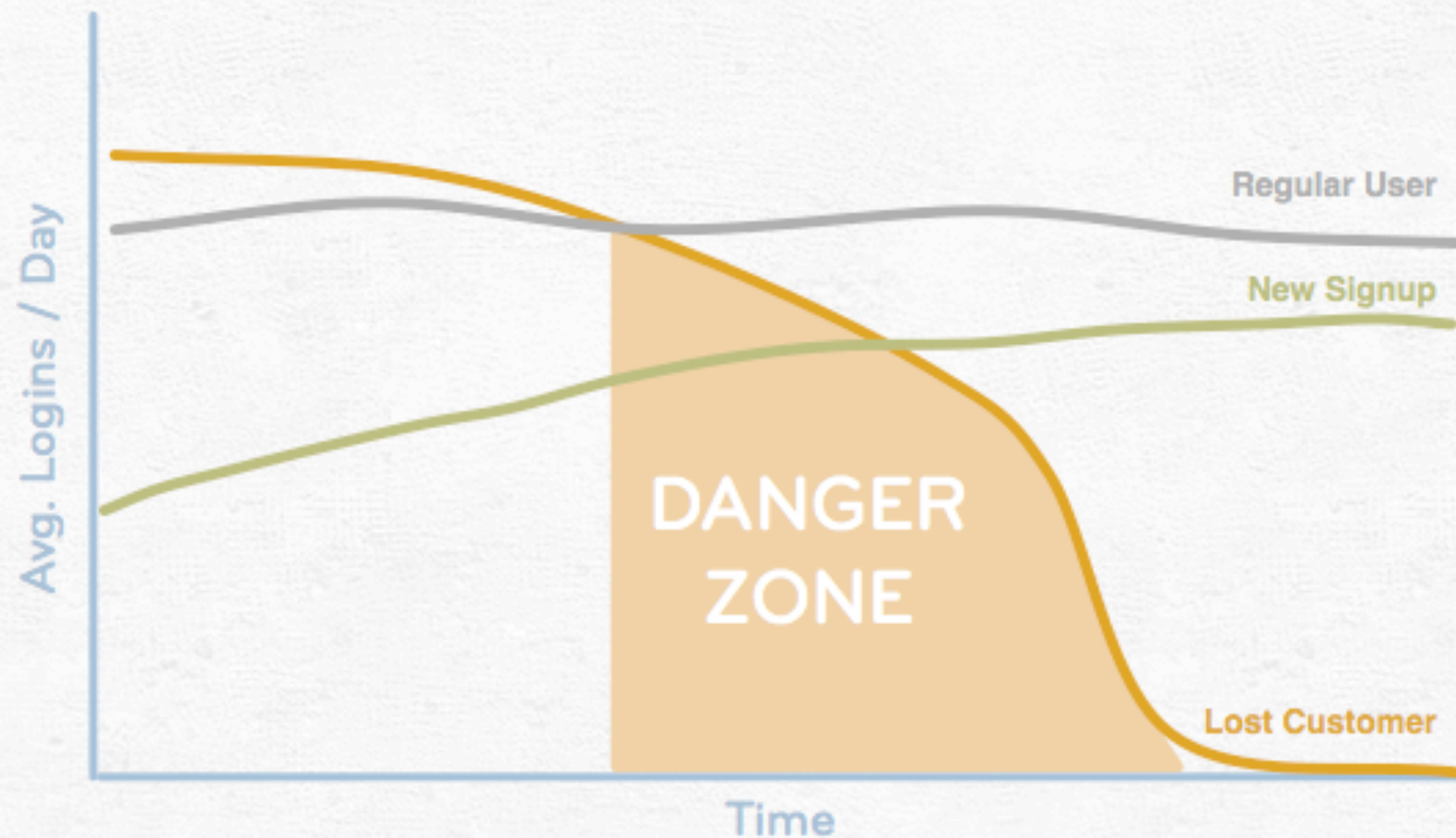


People don't wake up and suddenly want to unsubscribe your service...

"Oh.. it's May 5th.. Better churn from that random online startup i found 2 months ago."

Churn is not what you think it is

Activity Churn



You loose them in the first 3 weeks.

And then at some point just remind them to unsubscribe.

That's when we measure it (too late).

Churn is not what you think it is



Not all churn is equal

“Track churn at 1 day, 1 week and 1 month, because users leave at different times for different reasons. After one day it could be you have a lousy tutorial or just aren’t hooking users. After a week it could be that your game isn’t ‘deep enough,’ and after a month it could be poor update planning.”

Keith Katz, co-founder of Execution Labs
and former VP of Monetization for OpenFeint

(Knowing when users churn gives you an indication of why they’re churning and what you can try in order to keep them longer.)



Checkout Intercom.io

Segment + message customers = Awesome

The screenshot displays the Intercom.io dashboard interface. The top navigation bar includes tabs for 'SEE' (Users, Companies) and 'TALK' (Conversations, Manual, Auto). The left sidebar contains a 'FILTERS' section with various filters like 'RELATIONSHIP', 'SIGNED UP', 'LAST SEEN', 'SESSIONS', 'PLAN', 'APP NAME', 'CONVERSATIONS', and 'USER COUNT'. The main content area shows a list of users, with a modal window titled 'New auto message' open over it. The modal is configured to send a message to users who signed up exactly 30 days ago and are on a trial plan. The message content is: 'Hey {{ first_name | fallback:"there" }}, Your TaskTracker trial has expired, but we'd love you to stick around as we've more great features coming. Here's a deal: Sign up today with the code TrialExtension and you'll get another month of TaskTracker 100% free. Sound good?'. The modal also has a 'Save' button and a 'Show preview' link. The background table lists users with columns for NAME, CONVERSATIONS, PLAN, and USER COUNT.

NAME	CONVERSATIONS	PLAN	USER COUNT
Lorraine Lu	563	Pro	18963
Brandon Tr	0	Pro	512
Johny McD	206	Pro	2419
Crystal Blai	10808	Free	23080
Billy Newpo	60	Pro	8421
Lawrence M	1181	Free	2350
Jose Bisch	1	Free	170
Danny Keis	3954	Pro	25701
Clara Kimb	3961	Pro	13284
Veronica Sp	3960	Pro	26802
Jeremy Kraus	34	Free	536
Benjamin Shanks	3	Pro	215
Gary Arana	51	Pro	1723



User activation.

Some users are happy (power users)

Some come never again (churned users)

What differs them? It's their activities in **their first 30 days**.

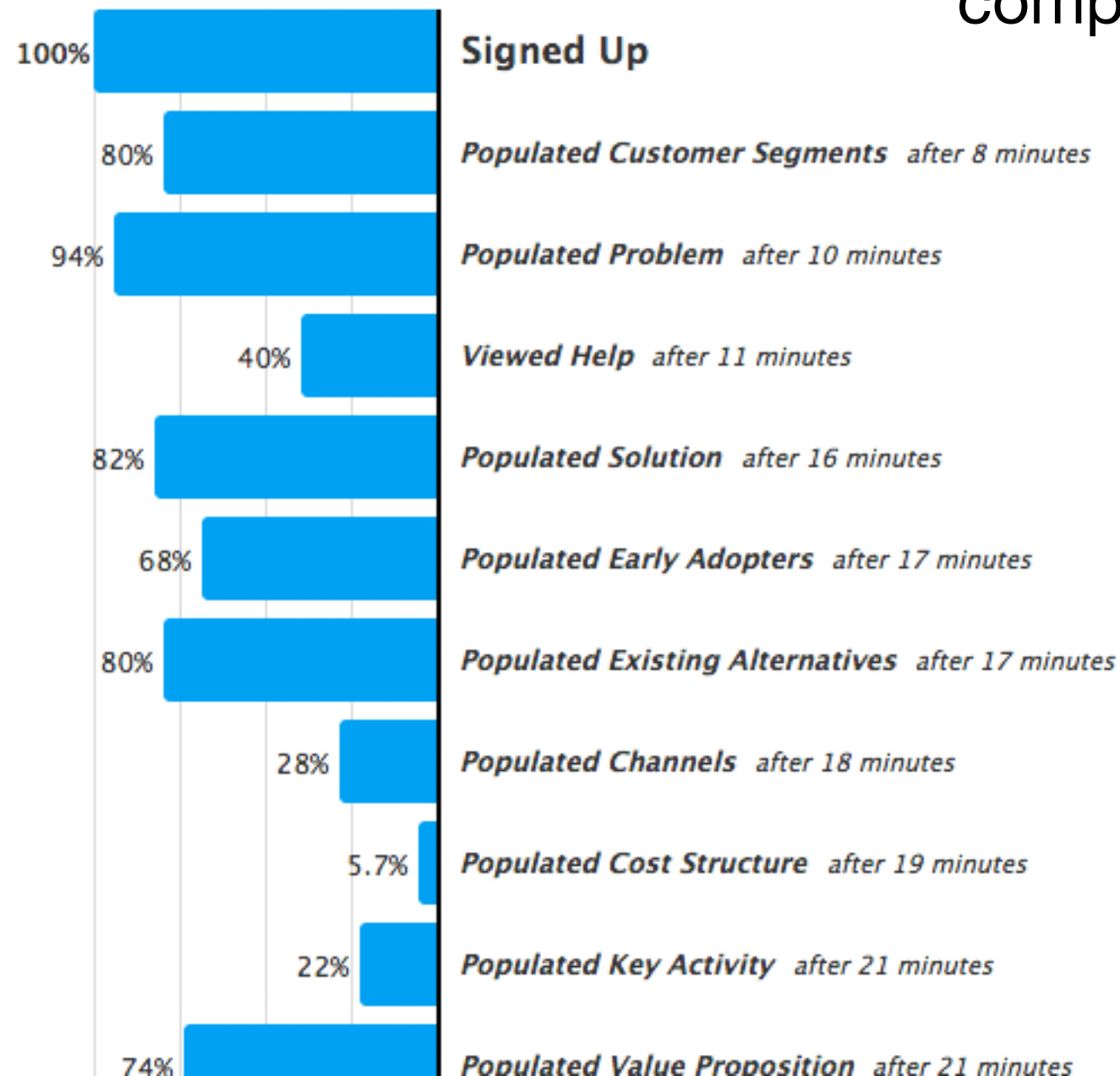
Sub-funnels

“What did the people do that signed up, before they signed up, compare to those who didn’t?”

Metrics Dashboard

← Jul 26 → | Signed Up to Activated

Successfully Activated (29.4%) Failed to Activate



Example Twitter

How often did activated users use twitter in the first month:

7 times

What did they do?

Follow 20 people, followed back by 10

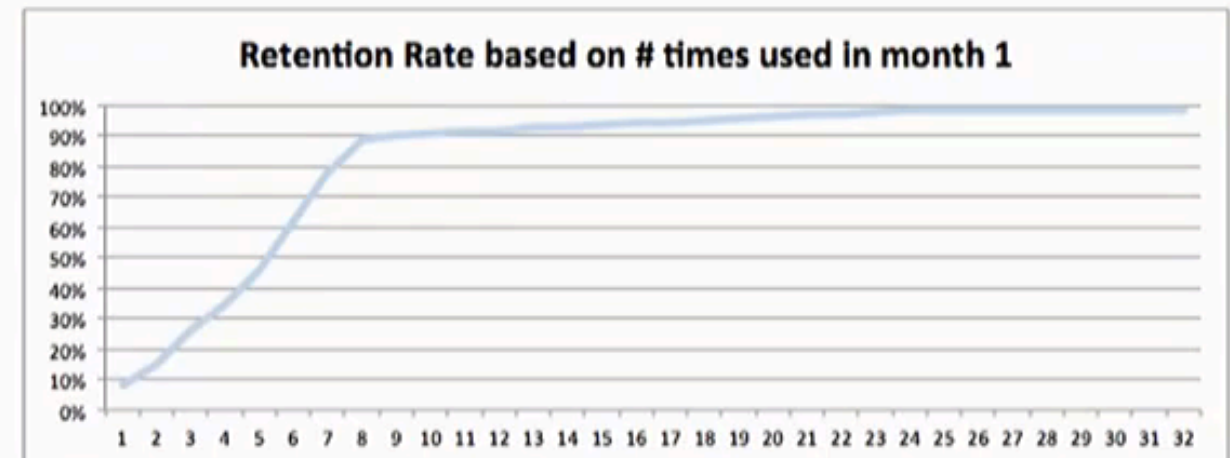
Churn:

If they don't keep them 7 times in the first 30 days.

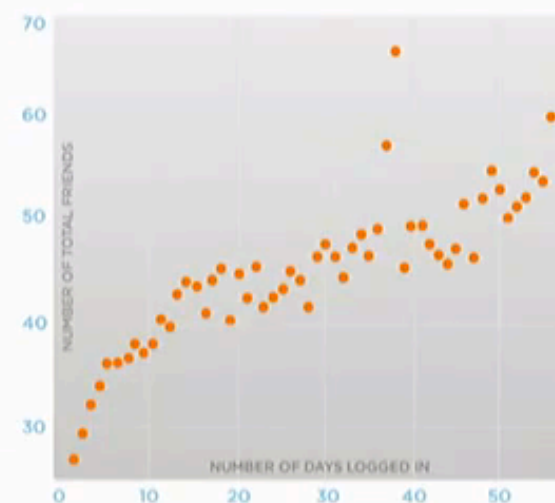
They will lose them forever.

It doesn't matter when a user remembers to unsubscribe

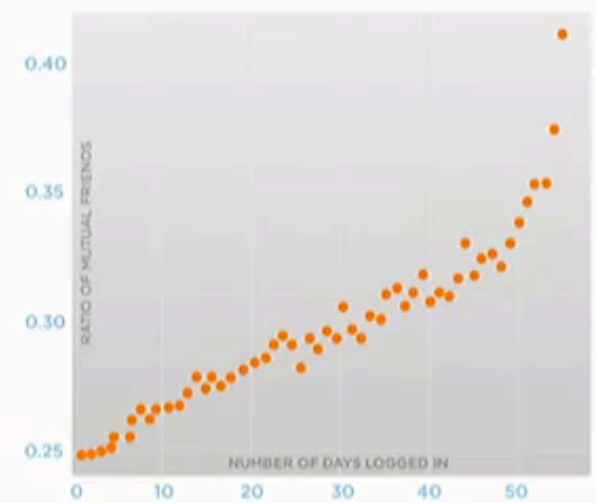
Question: How many times do people need to use twitter to stay retained?



Question: Of those people who are retained, what's different about them?



Following more than 30 accounts



1/3 - mutual follows 2/3 - one-way follows

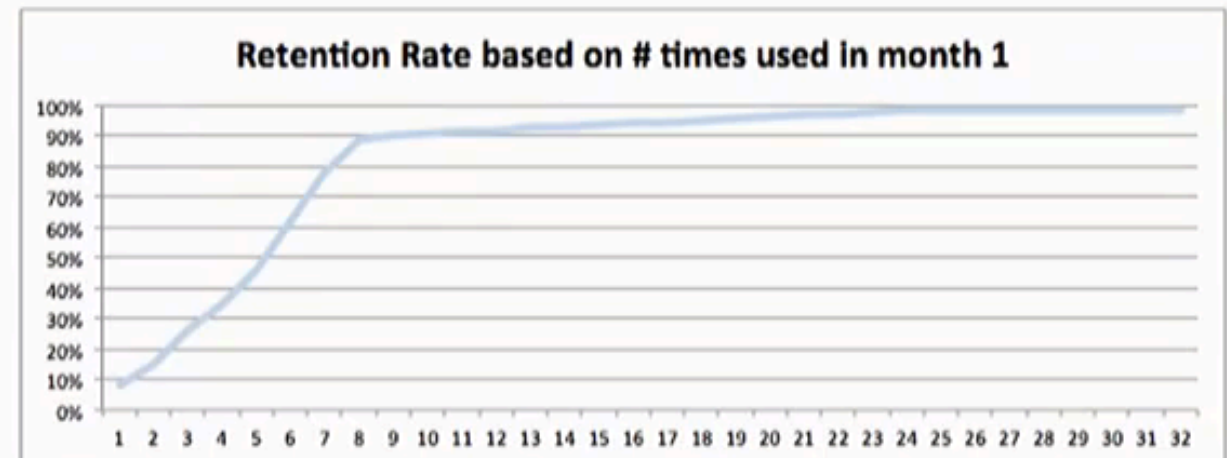
Example Twitter

Example Twitter:
How did they get more people to follow 30 people within 7 visits in the first 30 days?

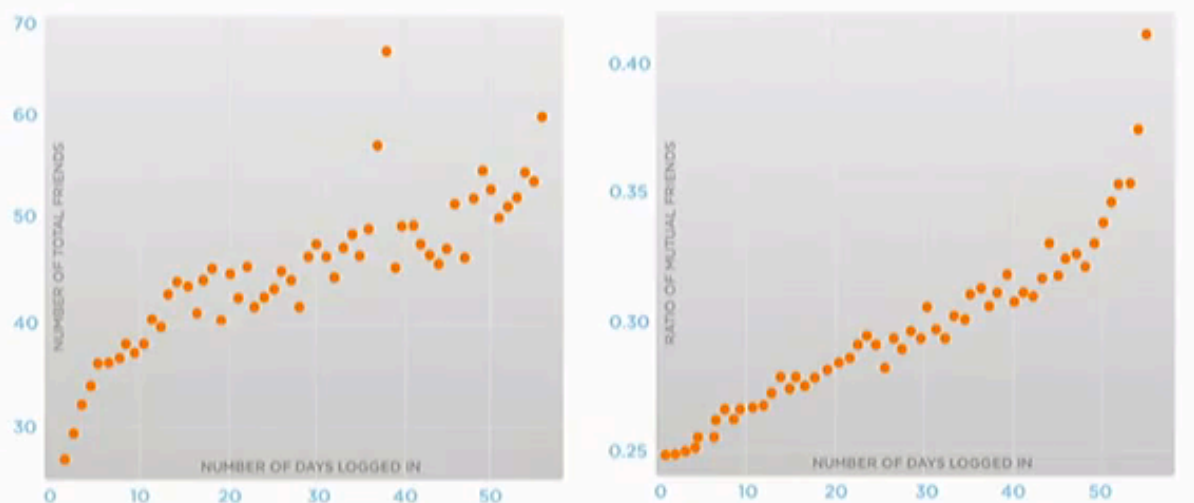
Ran assumptions, created features and ran experiments!

Watch: <http://www.youtube.com/watch?v=L2snRPbhsF0>

Question: How many times do people need to use twitter to stay retained?



Question: Of those people who are retained, what's different about them?



Following more than 30 accounts

1/3 - mutual follows 2/3 - one-way follows

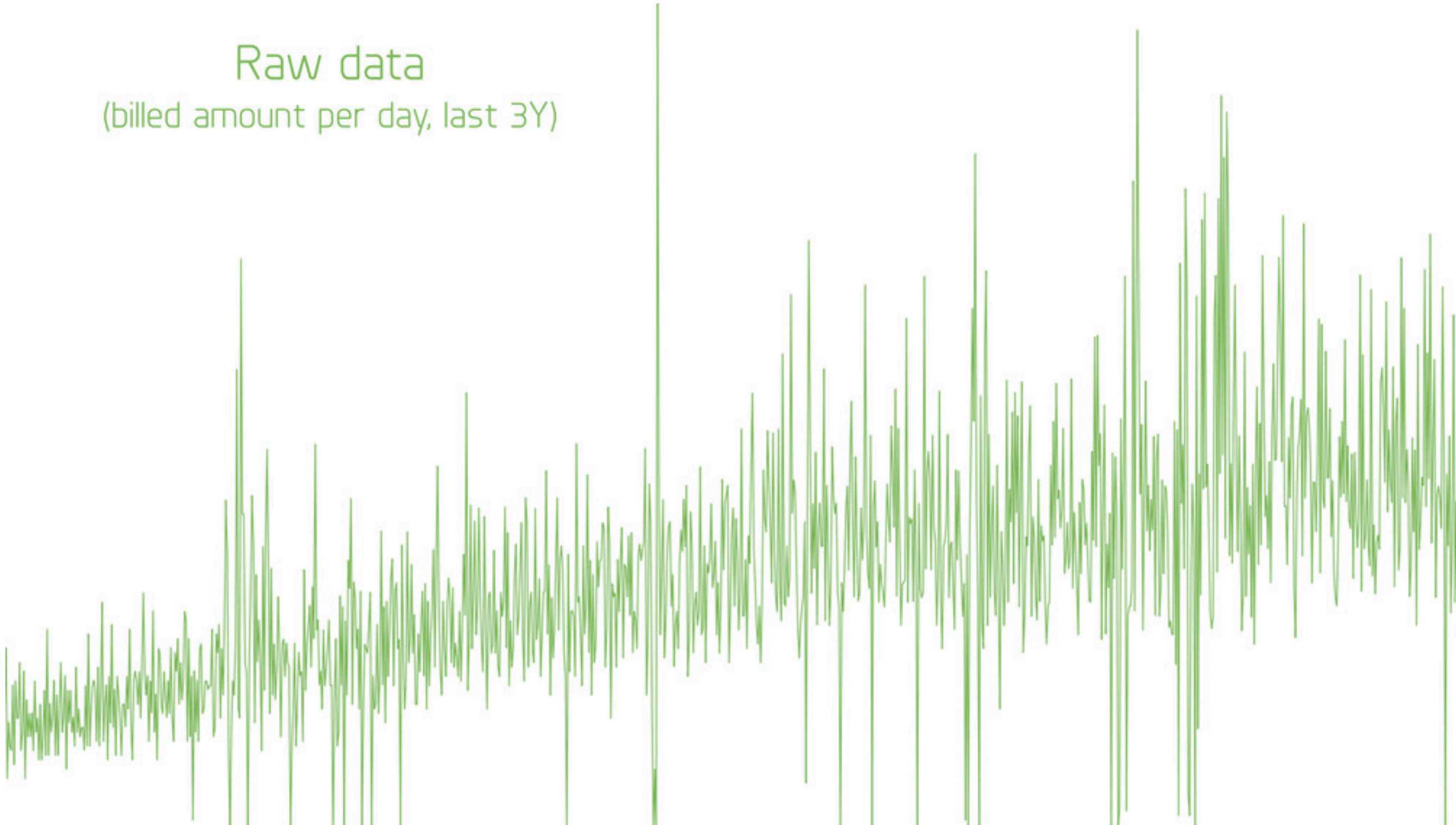
Data is noisy.



Data is noisy.

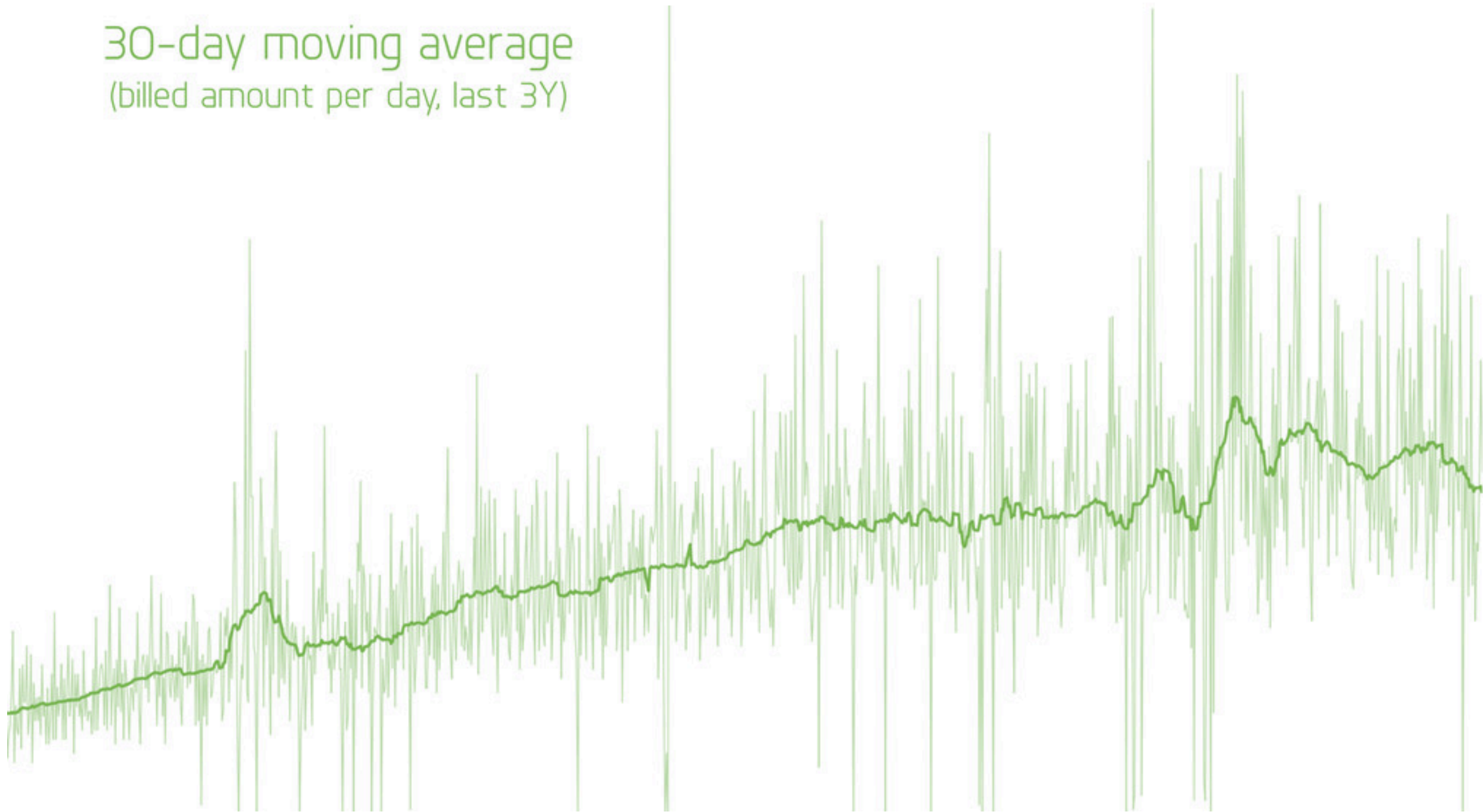
Raw data

(billed amount per day, last 3Y)



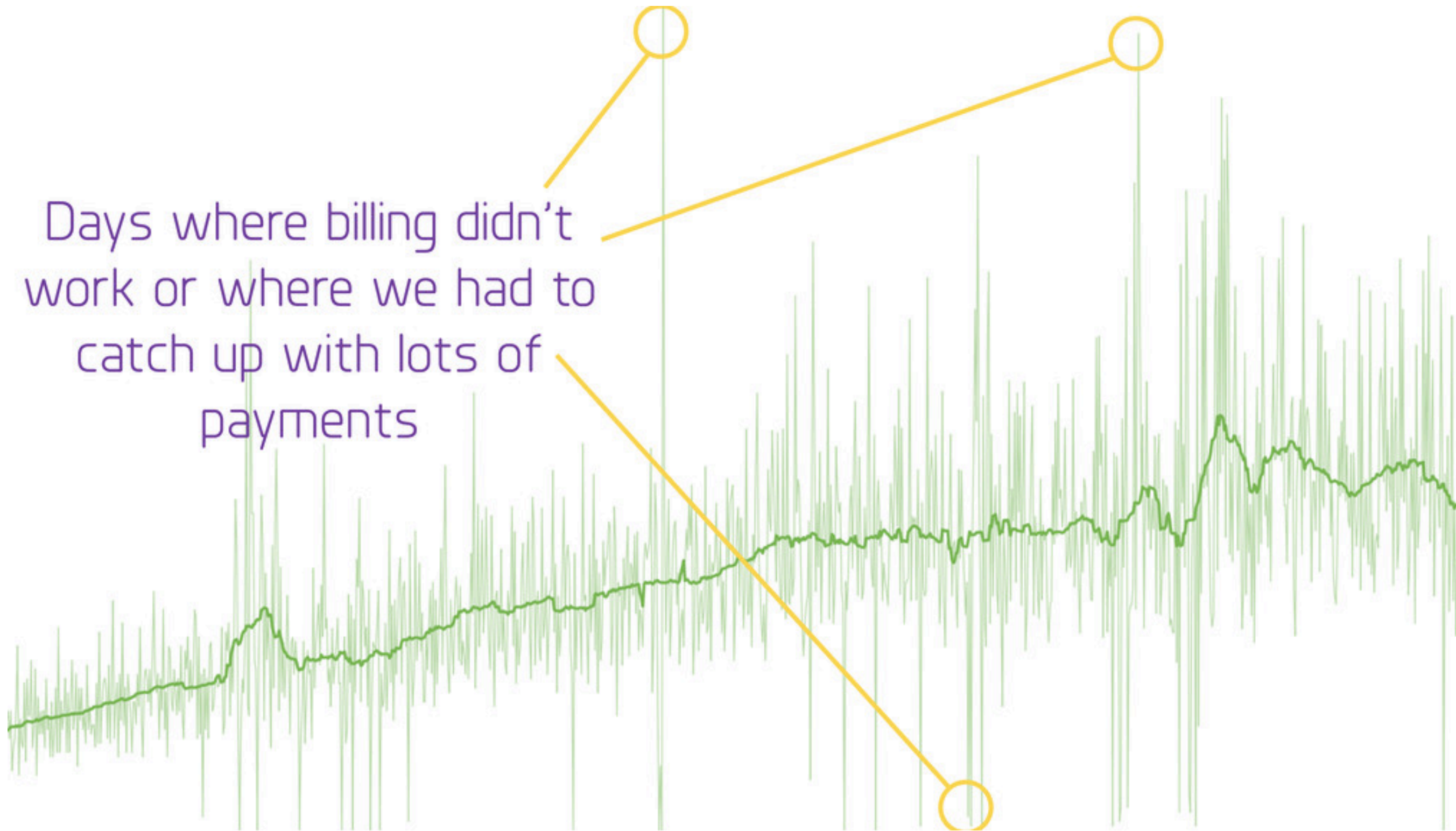
Data is noisy.

30-day moving average
(billed amount per day, last 3Y)



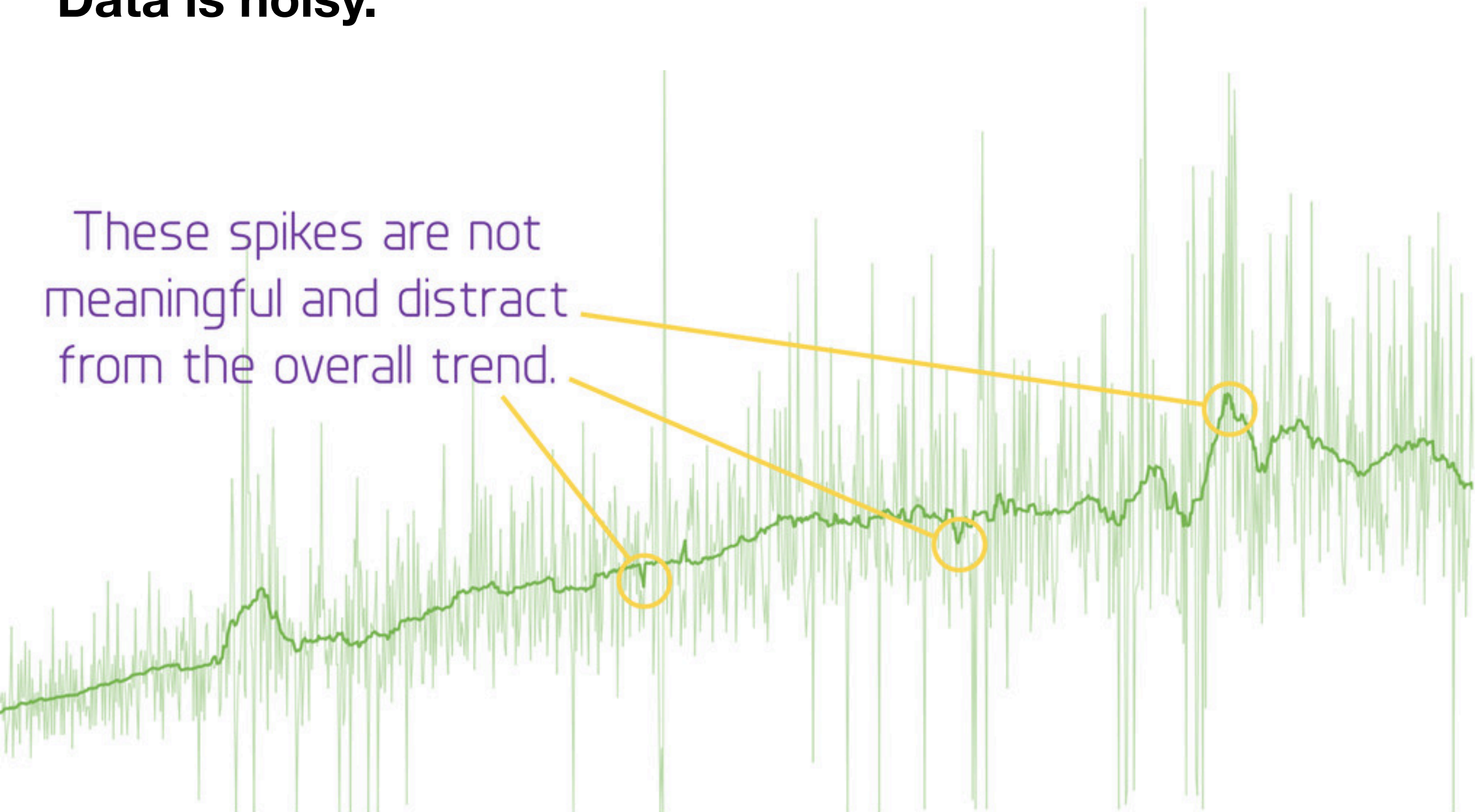
Data is noisy.

Days where billing didn't work or where we had to catch up with lots of payments



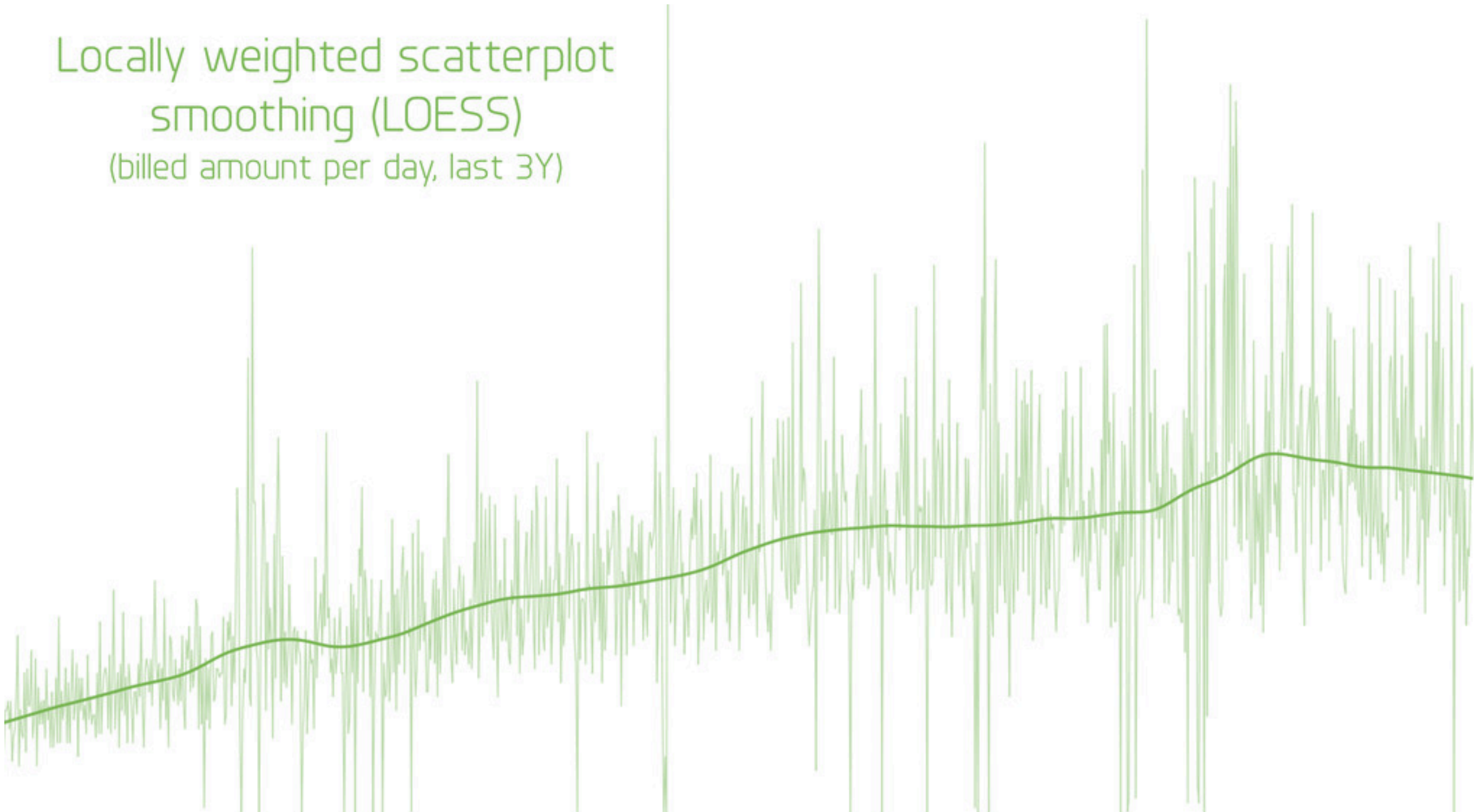
Data is noisy.

These spikes are not meaningful and distract from the overall trend.



Data is noisy.

Locally weighted scatterplot
smoothing (LOESS)
(billed amount per day, last 3Y)



<https://github.com/jasondavies/science.js/>

source: thomas fuchs - www.metricsftw.com



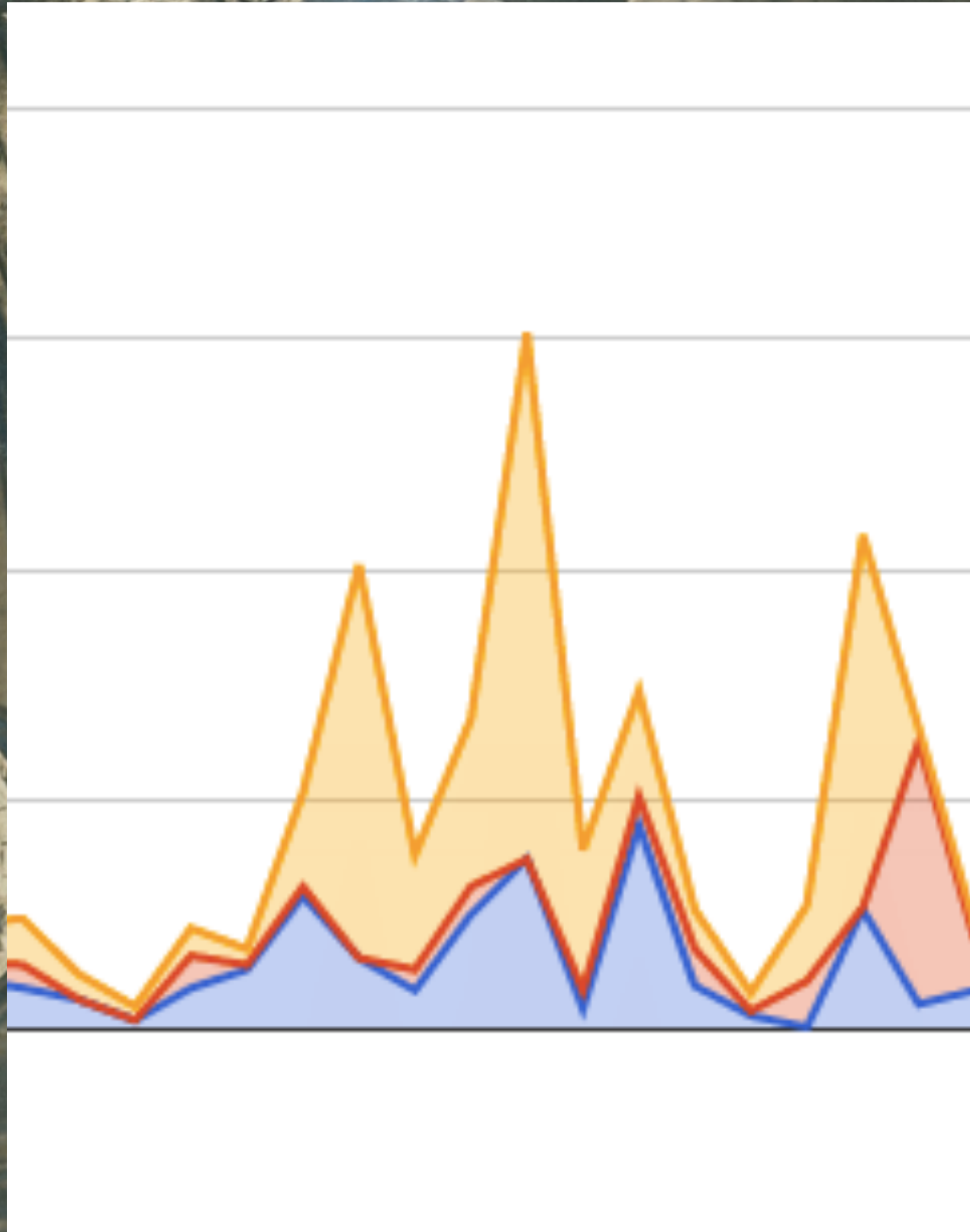
Dataschmutz

A layer of dirt obfuscating your useable data.

Usually “wrong intent”.
Usually our fault.

(~ sample noise we created ourselves)

Dataschmutz



A layer of dirt obfuscating
your useable data.

Birchbox Co-Founder Katia Beauchamp: We're Poised To Grow Way Beyond Beauty [TCTV]

COLLEEN TAYLOR

Tuesday, April 24th, 2012

7 Comments



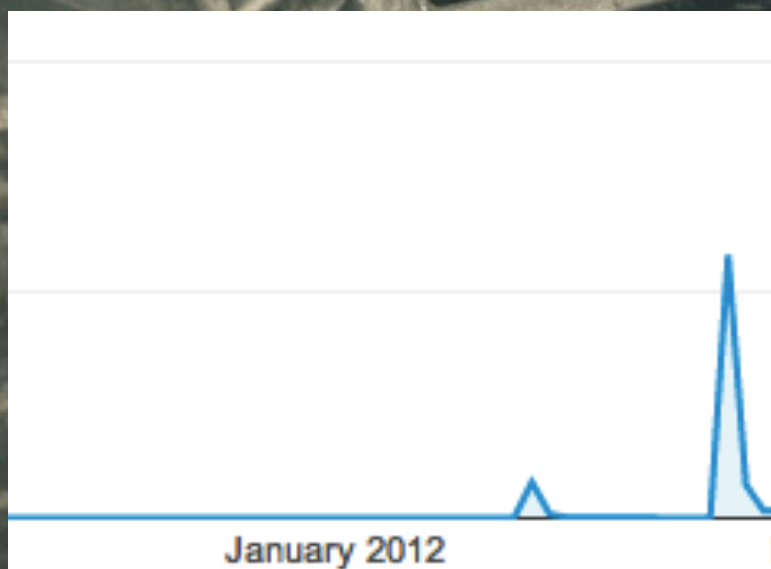
Interview With Katia Beauchamp, Co-Founder of Birchbox

Dataschmutz

A layer of dirt obfuscating your useable data.

e.g. Traffic Spikes of wrong customer segment.
(wrong intent)

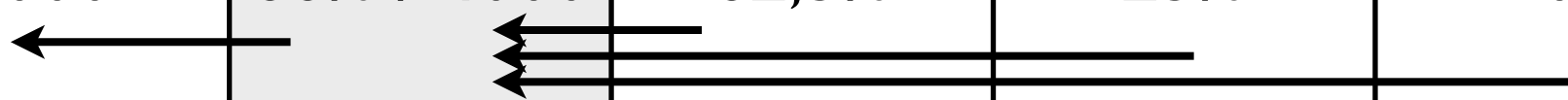
More “wrong” people come.
Lower conversion rate on the landing page.



How to minimize the impact of Dataschmutz

Base your KPIs on wavebreakers.

WK	visitors	acquisition	activation	retention	referral	revenue
Birchbox	visit	registration	first photo	twice a month	share	...
I	6000	66% / 4000	62,5%	25%	10%	
2	25000	35% / 8750	65%	23%	9%	
3	5000	70% / 3500	64%	26%	4%	



The diagram illustrates the flow of data from the acquisition stage to other KPIs for week 1. Arrows point from the acquisition cell (66% / 4000) to the visitor count (6000), activation rate (62,5%), retention rate (25%), and referral rate (10%).

MySugr

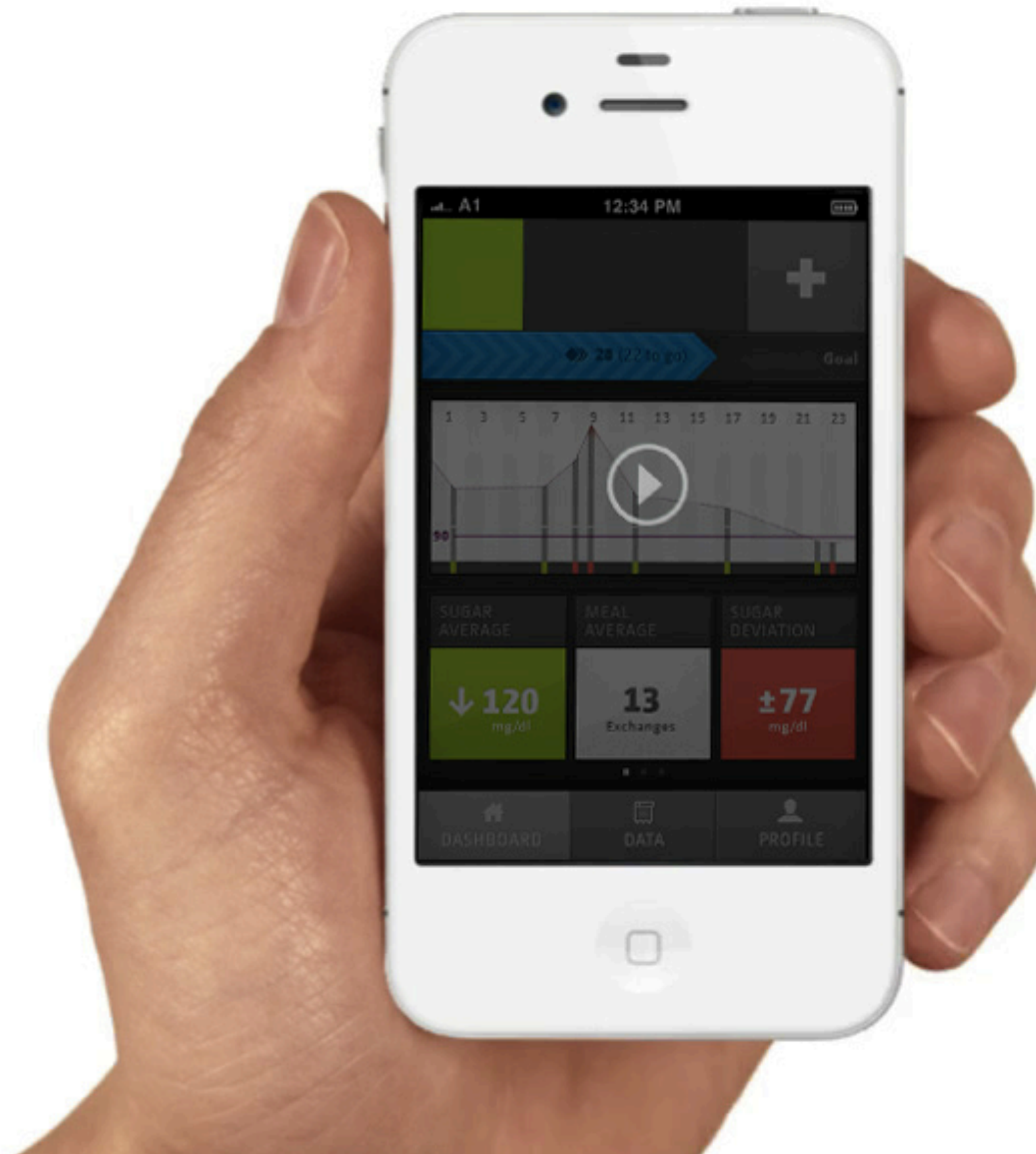
is praised as
“beautiful app”
example....

=> Downloads

=> Problem:

Not all are diabetic

They focus on people
who activated.



Dataschmutz

Competitions create artificial incentive



Competitions (before P/M Fit)
are nothing but **Teflon Marketing**

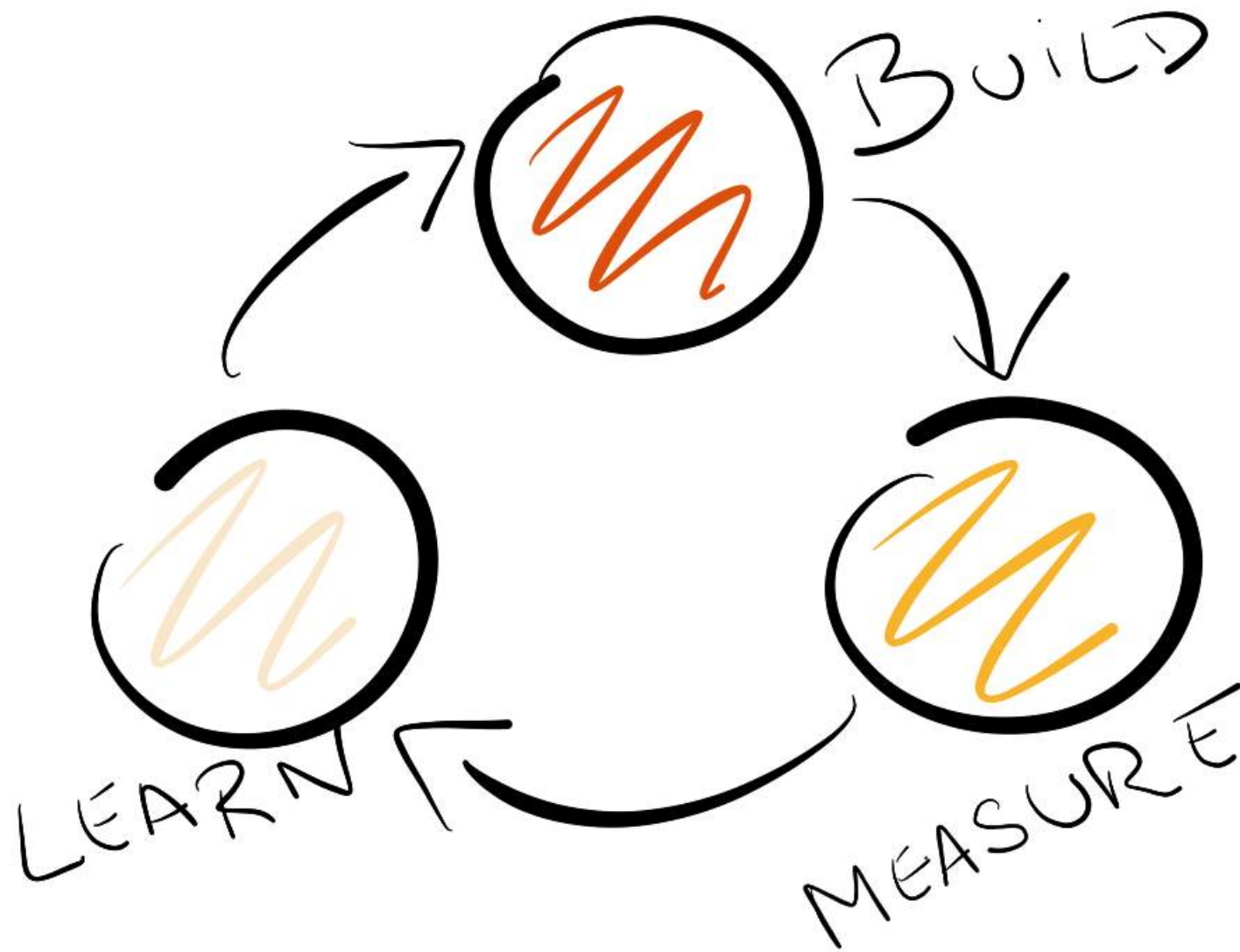
People come. People leave.
They leave dirt in your database.

*“Would you use my app and might
win 1.000.000 USD?”*

Lean Analytics



Lean Analytics



Lean Analytics

Problem #1: [put name of it here]

Hypothesized Solutions

- List possible solutions that you'll start working on in the next week. Rank them.
 - Why do you believe each solution will help solve or completely solve the problem?

Metrics / Proof + Goals

- List metrics you'll use to measure whether or not the solutions (to the left) are doing what you expected (solving the problem)
- List proof (qualitative) you'll use as well
- Define goals for the metrics

Problem #2: [put name of it here]

Hypothesized Solutions

- List possible solutions that you'll start working on in the next week. Rank them.
 - Why do you believe each solution will help solve or completely solve the problem?

Metrics / Proof + Goals

- List metrics you'll use to measure whether or not the solutions (to the left) are doing what you expected (solving the problem)
- List proof (qualitative) you'll use as well
- Define goals for the metrics

Lean Analytics



Hypothesis: We believe that introducing a newsfeed will increase interaction between users.

Track: Engagement between users (comments/likes)

Falsifiable Hypothesis: People who visited the newsfeed will give a 30% more comments and likes, than people who didn't.



Lean Analytics

Important #1:

Don't forget to timebox experiments.

Important #2:

Worry less about statistical significance (while early stage).
Just use experiments to doublecheck your entrepreneurial intuition.

AARRR misses something



CUSTOMER INTENT

Acquisition

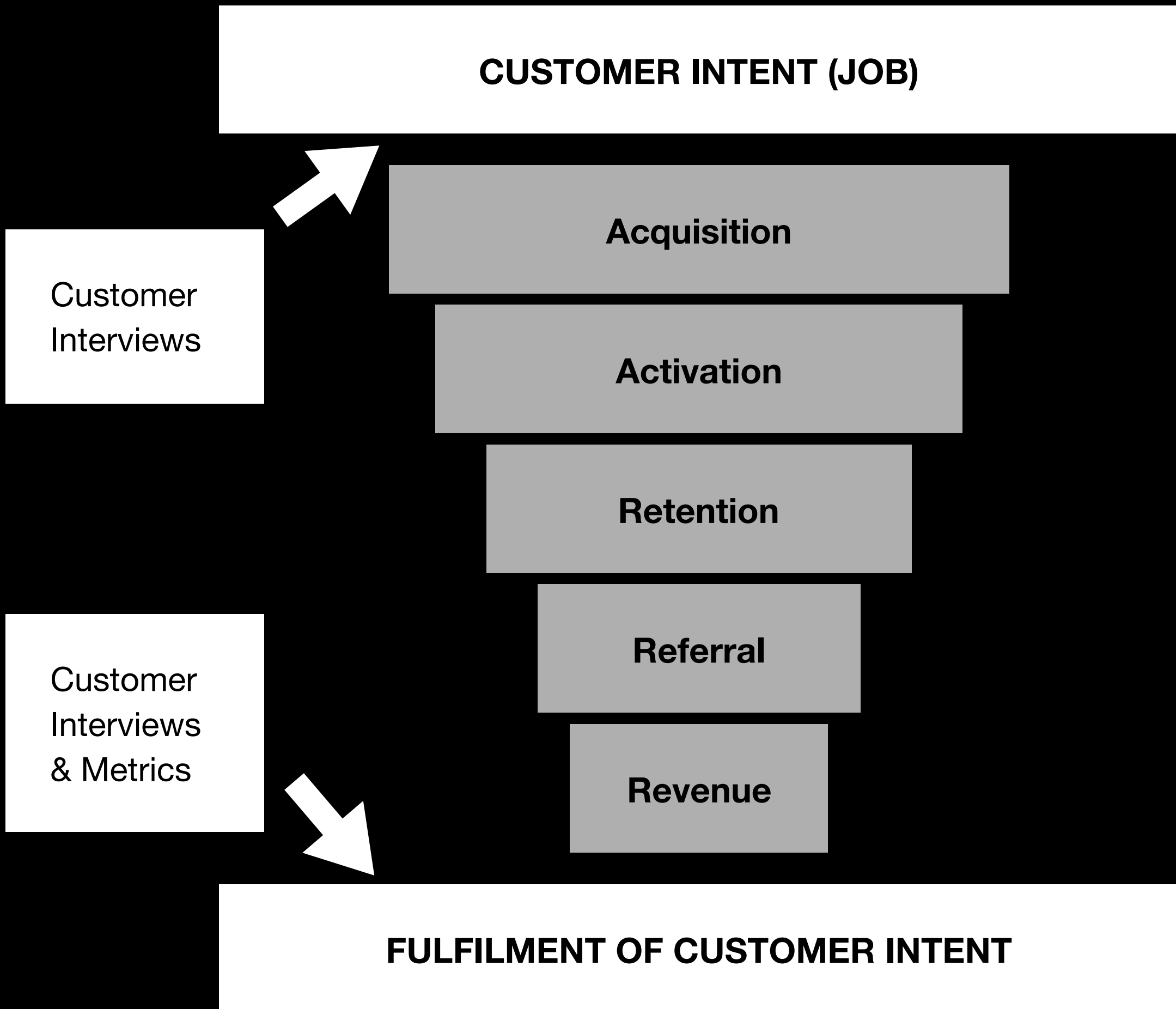
Activation

Retention

Referral

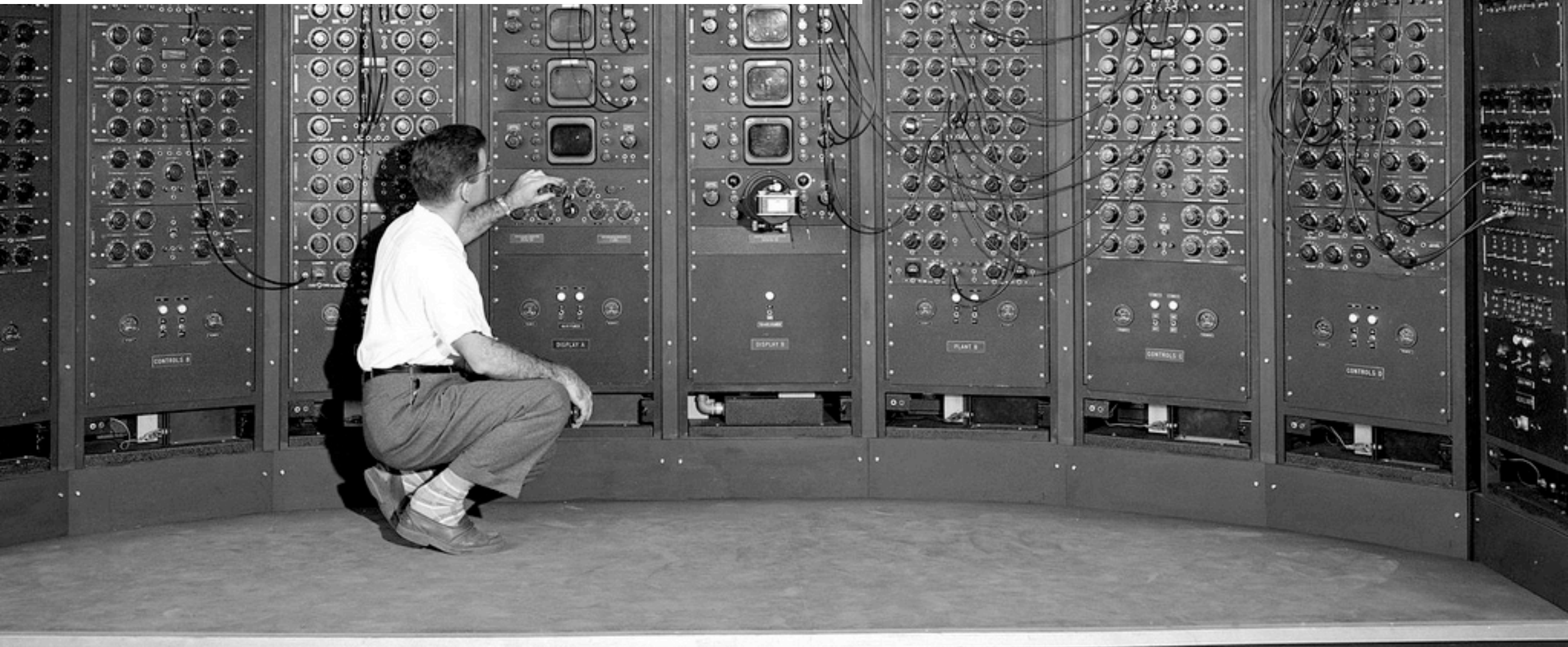
Revenue

FULFILMENT OF CUSTOMER INTENT



That's you using metrics

"Look ma, the light started blinking"



Metrics are horrible way to understand customer intent

Customer Intent = His “Job to be done”



Products are bought because they solve a “job to be done”.

Learn about Jobs to be done Framework

Watch: <http://bit.ly/cc-jtbd>

Metrics are horrible way to understand customer intent

Great Way: Customer Interviews



But: We bias our people,
when we ask them.

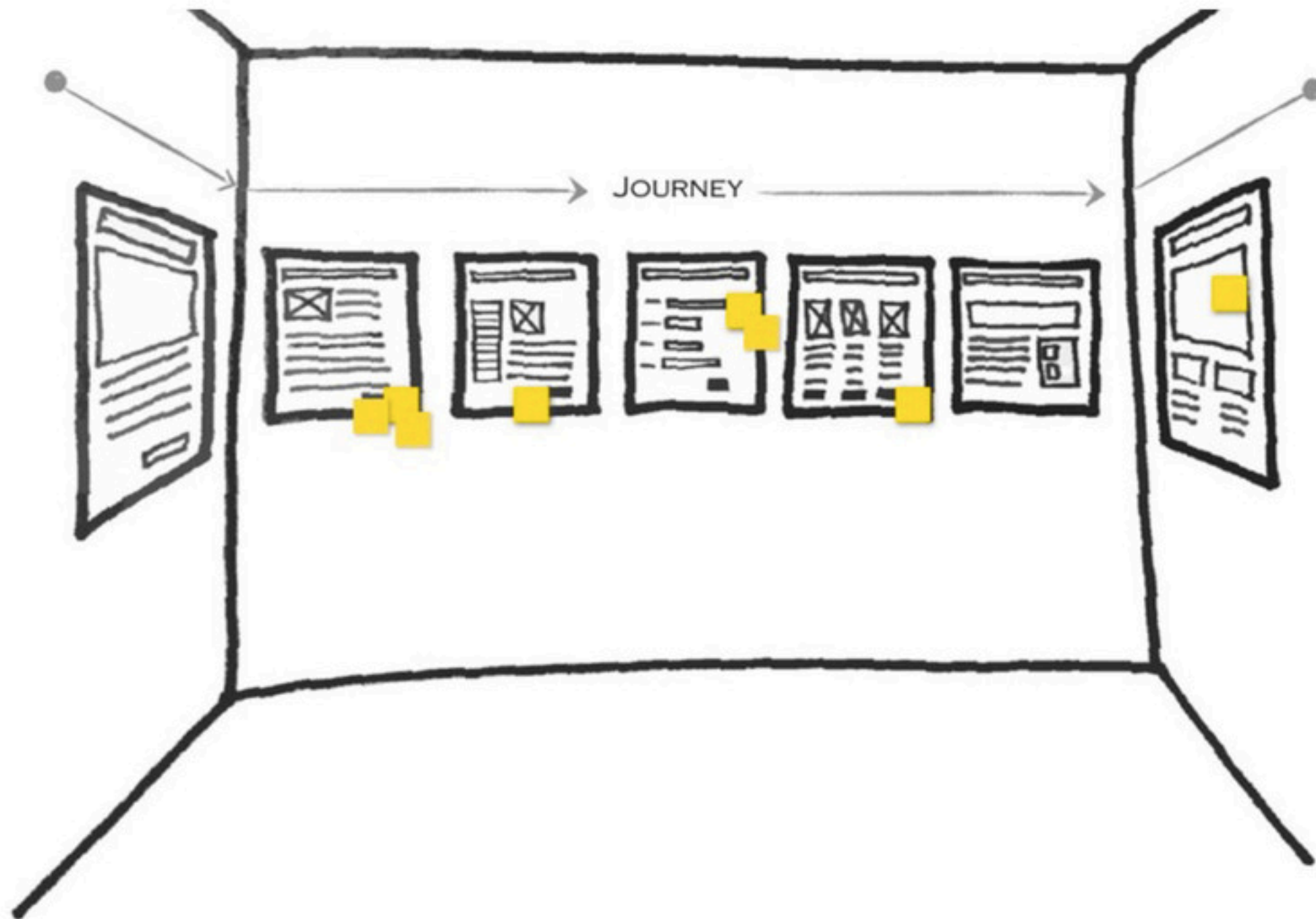
Even if we try not to.

Reason: we believe our
own bullshit.

Watch: www.hackertalks.io

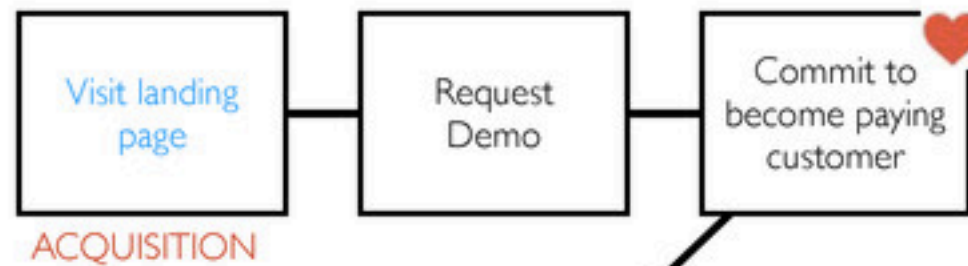
Rob Fitzpatrick - How To Do (And What To
Expect From) Early-Stage Customer
Development & Sales

Usability Tests

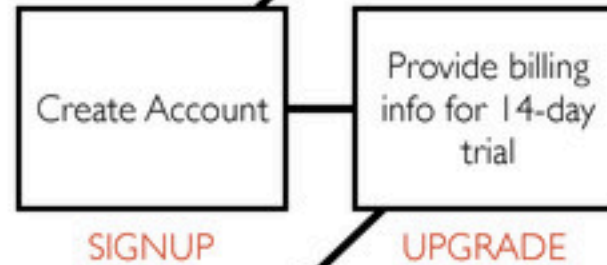


Customer Journey Maps

Day 1



Day 2



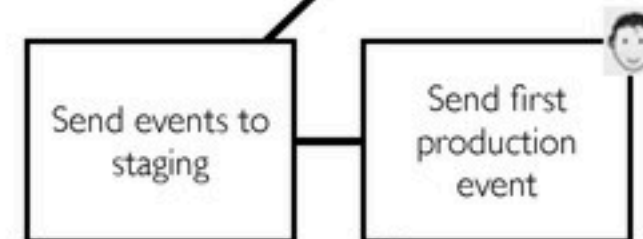
Day 3



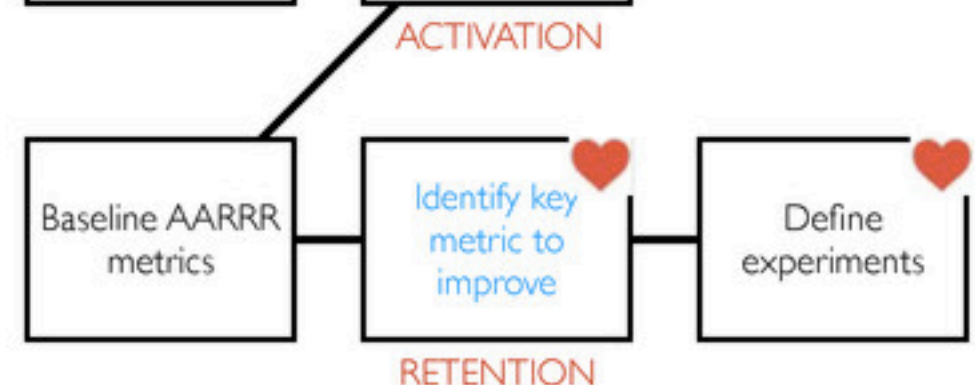
Week 2



Week 3



Week 4





Groupwork.

- Draw your customer journey
- Pick a point where there is likely a problem
- Formulate assumption
- Formulate Success Criteria



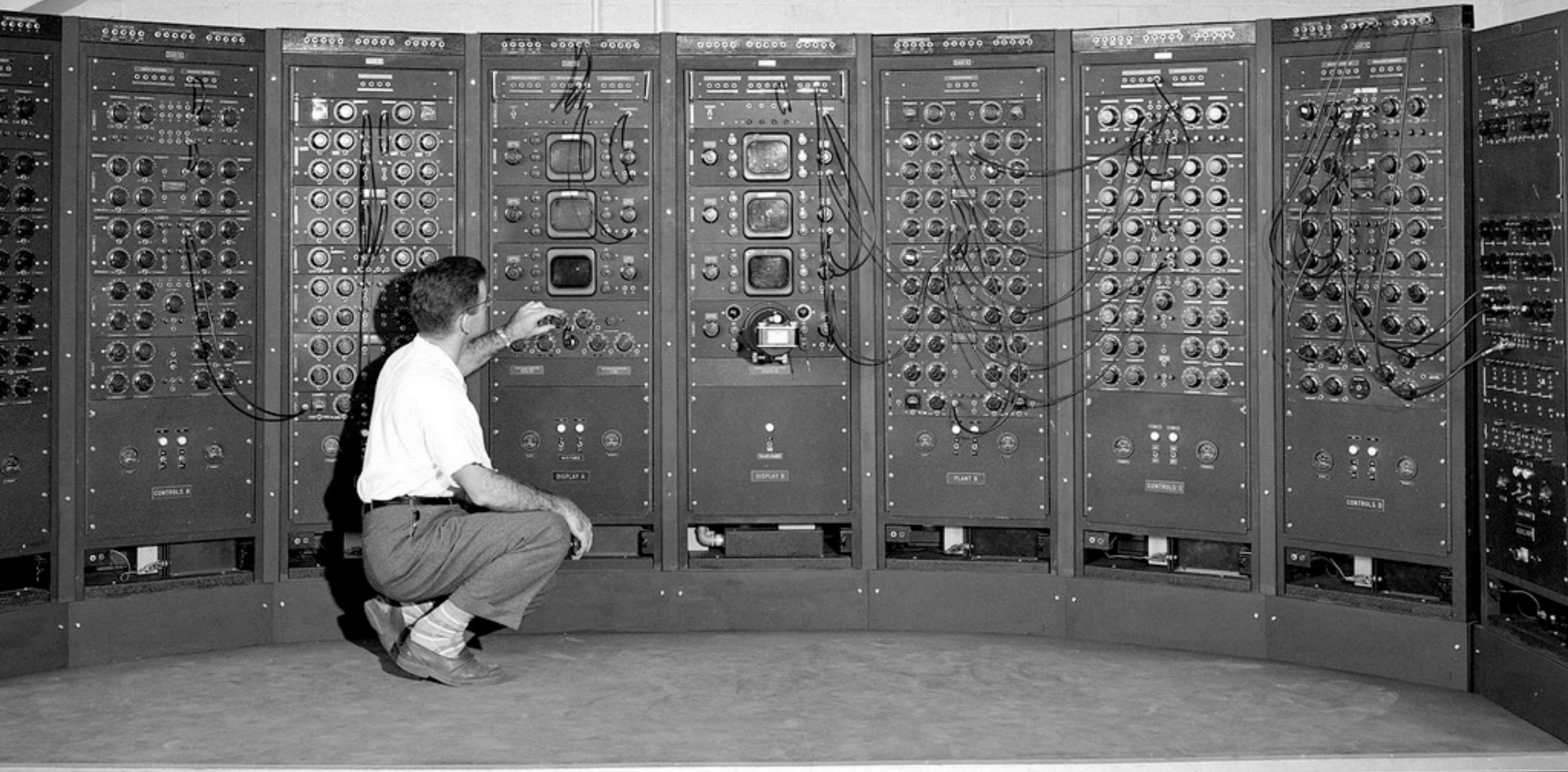


Show & Tell.



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Summary



Summary

- Use Metrics for Product and Customer Development.
- Use Cohorts.
- Use AARRR.
- Figure Customer Intent through non-biasing interviews.
- Understand your type of product and it's core drivers
- Find KPIs that mean something to your specific product.
- Avoid Telfonmarketing (eg Campaigns pre-product).
- Filter Dataschmutz
- Metrics need to hurt
- Focus on the first 30 days of customer activation.
- Connect Product Hypotheses to Metrics.
- Don't hide behind numbers.

**TL;DR: Use metrics to validate/doublecheck.
Use those insights when designing for/speaking to your customers.**

Read on

Startup metrics for Pirates by Dave McClure

<http://www.slideshare.net/dmc500hats/startup-metrics-for-pirates-long-version>

Actionable Metrics by Ash Maurya

<http://www.ashmaurya.com/2010/07/3-rules-to-actionable-metrics/>

Data Science Secrets by DJ Patil - LeWeb London 2012

<http://www.youtube.com/watch?v=L2snRPbhsF0>

Twitter sign up process

<http://www.lukew.com/ff/entry.asp?1128>

Lean startup metrics - @stueccles

<http://www.slideshare.net/stueccles/lean-startup-metrics>

Cohorts in Google Analytics - @serenestudios

<http://danhilltech.tumblr.com/post/12509218078/startups-hacking-a-cohort-analysis-with-google>

Rob Fitzpatrick's Collection of best Custdev Videos - @robfitz

<http://www.hackertalks.io>

Lean Analytics Book

<http://leananalyticsbook.com/introducing-lean-analytics/>

Actionable Metrics - @lfittl

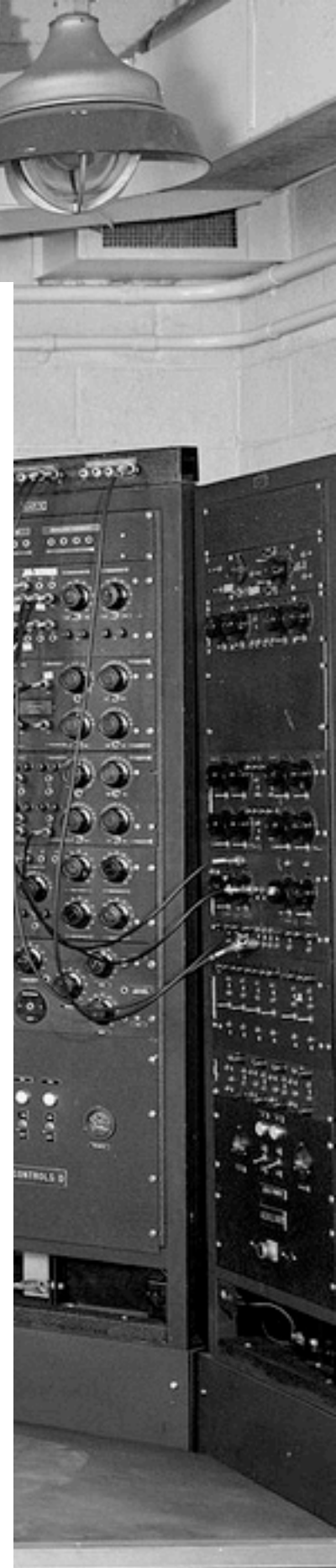
<http://www.slideshare.net/lfittl/actionable-metrics-lean-startup-meetup-berlin>

App Engagement Matrix - Flurry

<http://blog.flurry.com/bid/90743/App-Engagement-The-Matrix-Reloaded>

My Blog

<http://www.klinger.io>



Thank you

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