

**RUN LESS SOFTWARE**



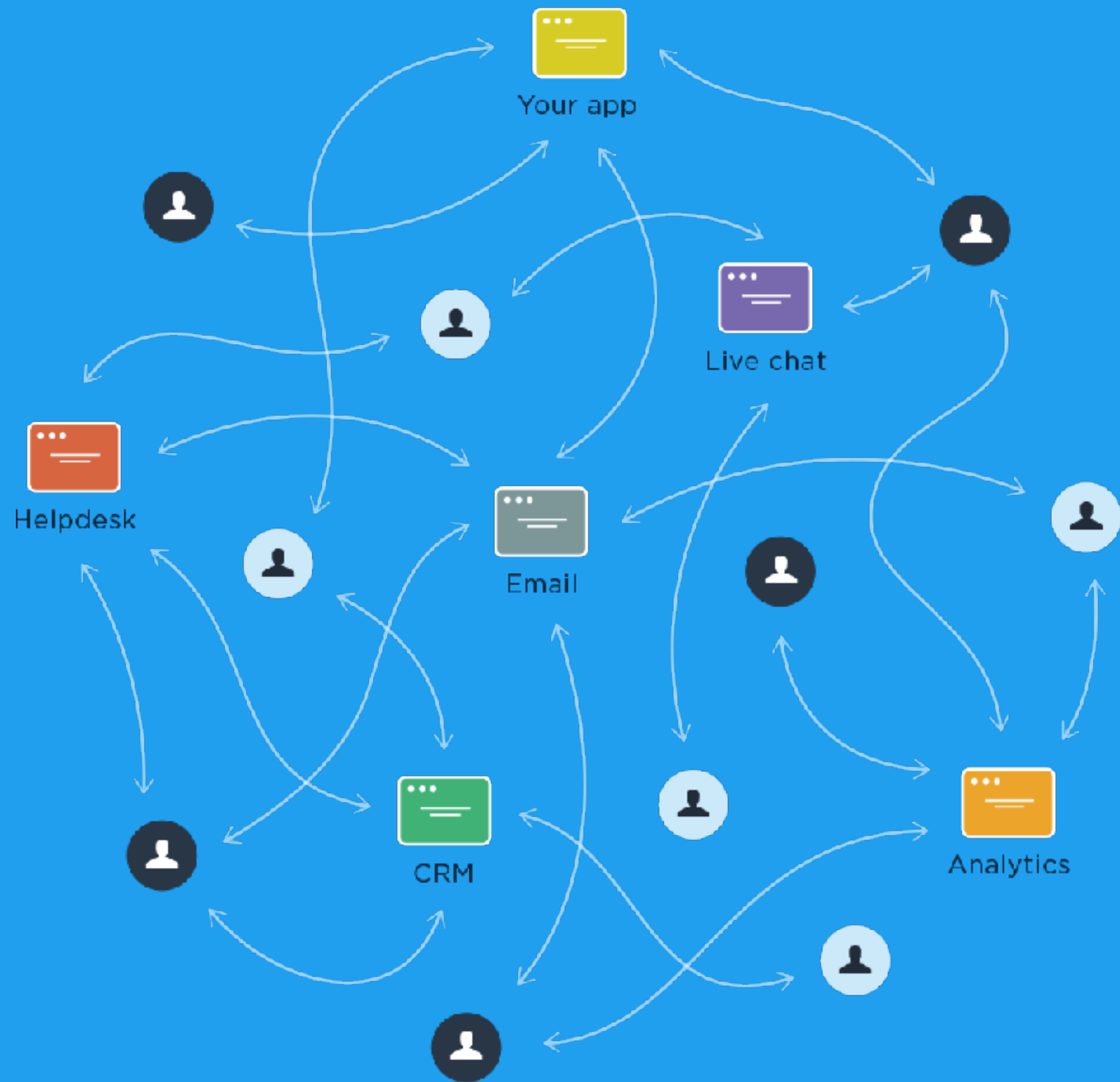
**Rich Archbold**

**@rich\_archbold**

**Director of Engineering**

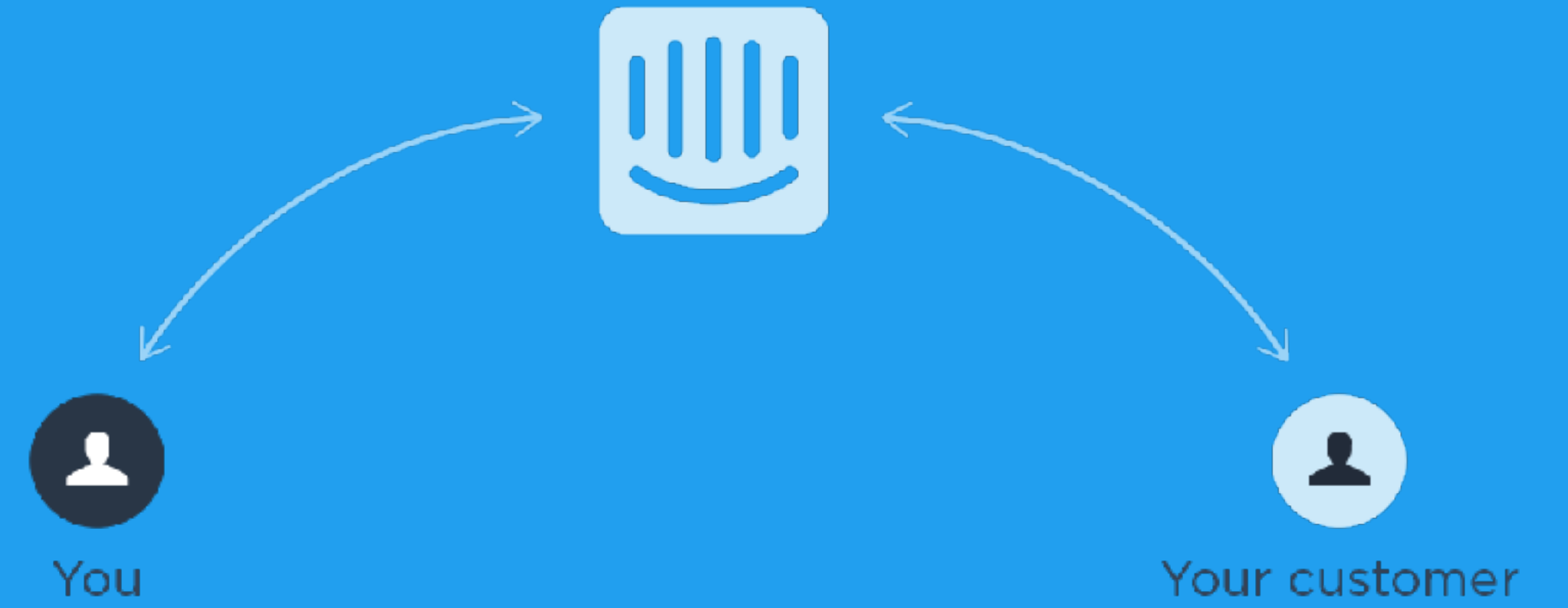
**Intercom**

## THE OLD WAY



VS

## THE NEW WAY















vs





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CRUNCH NETWORK

# Slack And HipChat Are On The Verge Of Launching Chat Wars

Posted Dec 23, 2015 by [Alex Moazed \(@alexmoazed\)](#)



OMG.

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CRUNCH NETWORK

# Slack And HipChat Chat Wars

Posted Dec 23, 2015



Andrew Wilkinson [Follow](#)  
Founder of MetaLab ([www.metalab.co](http://www.metalab.co)) and Flow ([www.getflow.com](http://www.getflow.com)). Publisher of Designer News (...)  
May 1, 2015 · 7 min read

## Slack's \$2.8 Billion Dollar Secret Sauce

How Slack stole a multi-billion dollar market by becoming everyone's favorite sassy robot sidekick.

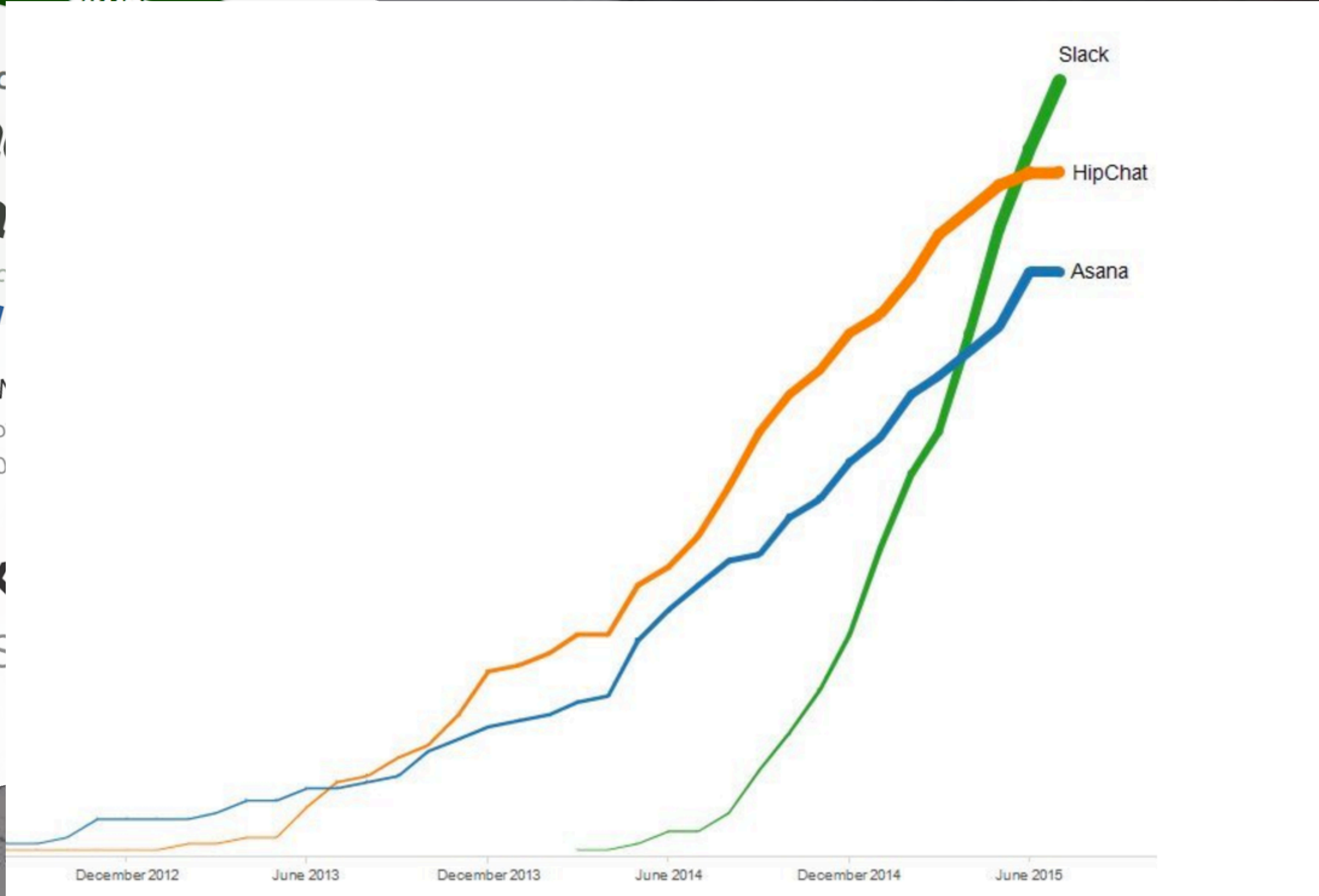
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Posted Dec



Andrew V  
Founder o  
May 1, 20

**Slack**  
How S





**VS**

A stylized graphic of the letters 'VS' in a bold, blocky font. The letters are filled with a yellow-to-orange gradient and a halftone dot pattern. They are set against a blue, jagged, starburst-like background that resembles a comic book explosion.

AdChoices

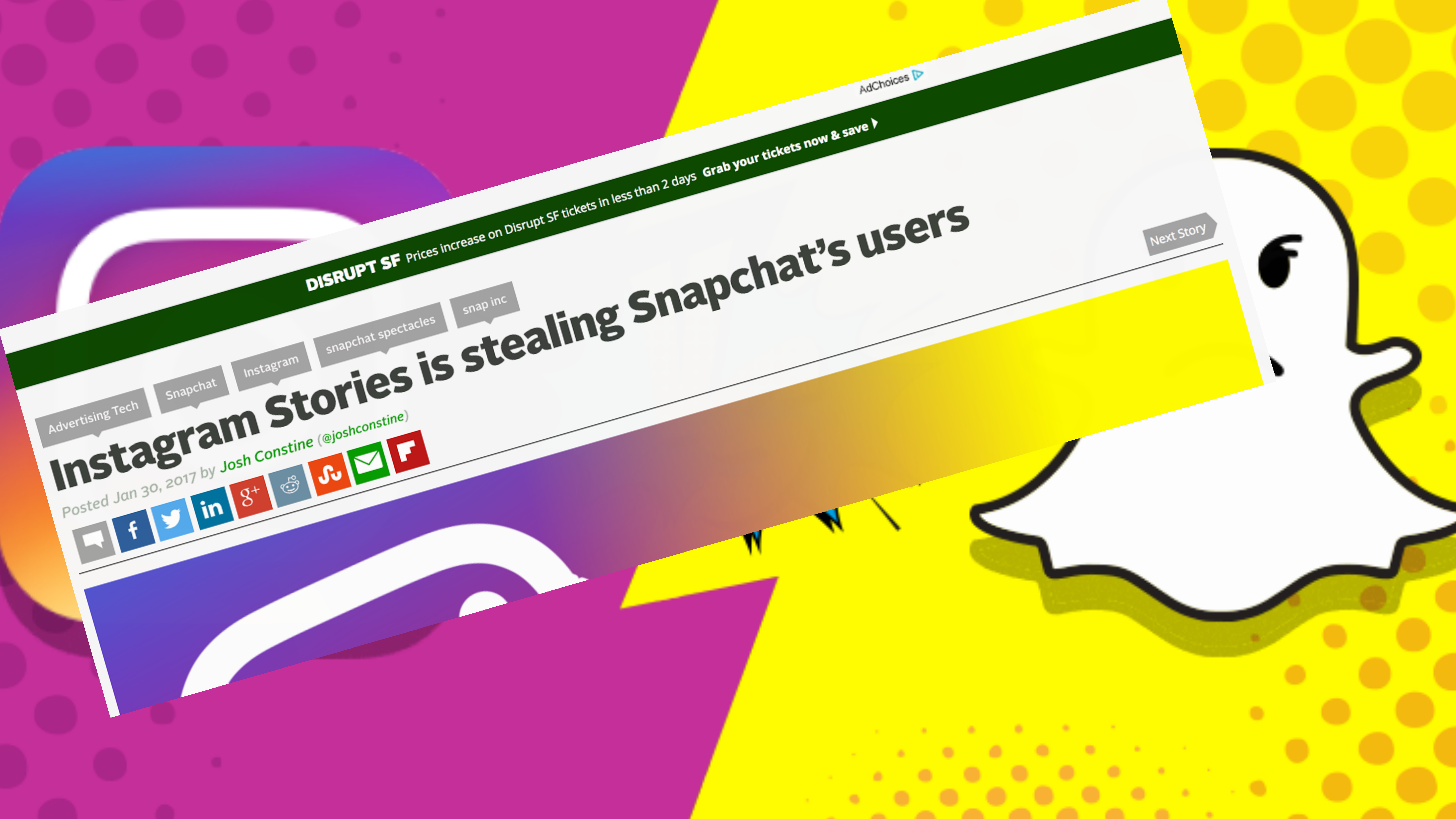
**DISRUPT SF** Prices increase on Disrupt SF tickets in less than 2 days [Grab your tickets now & save](#)

Advertising Tech | Snapchat | Instagram | snapchat spectacles | snap inc

# Instagram Stories is stealing Snapchat's users

Next Story

Posted Jan 30, 2017 by [Josh Constine \(@joshconstine\)](#)



# Instagram's strategy of stealing Snapchat features is paying off beautifully



Yoni Heisler  [@edibleapple](#)  
April 26th, 2017 at 10:11 PM

 Share

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Advertising Tech

Instagram

Posted Jan 30, 2017



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your tickets now & save

AdChoices

Grab your tickets now & save ▶

# Strategy of stealing Snapchat beautifully

AdChoices

Grab your tickets now & save ▶

## Instagram Stories turns 1 as daily use surpasses Snapchat

Posted Aug 2, 2017 by [Josh Constine \(@joshconstine\)](#)



The background features a collage of overlapping elements: a purple and yellow polka-dot pattern, a yellow background with orange polka dots, and several tilted white panels. One panel shows a green banner with the text 'DISRUPT SF Prices increase on Disrupt SF tickets in...' and 'your tickets now & save'. Another panel shows the title 'Strategy of stealing Snapchat' and the word 'Insta...'. A third panel shows 'Advertising Te...' and 'Insta... Poster' with a Facebook icon. At the bottom right, a 'Next Story' button is visible above a row of numbered boxes (1-7), with a green 'X' over box 3.

# Instagram Stories thrives in social media's copycat culture

Social Cues: Social media is an endless cycle of stealing content. Sometimes, it helps your company make millions.



INDY/TECH

# SNAPCHAT MIGHT BE IN TERMINAL DECLINE AS INSTAGRAM AND FACEBOOK SUCCESSFULLY STEALS ITS USERS

## SOCIAL MEDIA'S COPYCAT CULTURE

Social Cues: Social media is an endless cycle of stealing content. Sometimes, it helps your company make millions.

1 2 ~~3~~ 4 5 6 7

Next Story

INDY/TECH

# SNAPCHAT DECLINE AS SUCCESSFU

Social Cues: Soc

Sometimes, it he

# Snap is a dead stock walking



Timothy Green, The Motley Fool

🕒 Jul. 15, 2017, 3:56 PM 🔥 5,012



FACEBOOK



LINKEDIN



TWITTER

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Next Story

amazon



Blue  
Apron



amazon

TECH

TECH

MOBILE

SOCIAL MEDIA

ENTERPRISE

CYBERSECURITY

TECH GUIDE

# Blue Apron hits all-time low as Amazon suggests it will get into the meal-kit business

- Amazon has registered a trademark in the U.S. for a service described as: "We do the prep. You be the chef," according to a filing previously uncovered by The Sunday Times.
- Blue Apron stock is down nearly 30 percent month to date.
- The public market may be struggling to match the high valuation that Blue Apron saw in the private market, one expert said.

ue  
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ENTERPRISE | CYBERSECURITY | TECH GUIDE

TECH

TECH

# Amazon's Blue Apron knock-off is live – and it's already selling out

Kate Taylor

Jul. 18, 2017, 2:12 PM 455

FACEBOOK

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TWITTER

EMAIL

PRINT

- Amazon do the prep
- The Sunday Times
- Blue Apron stock is down near
- The public market may be struggling to
- Apron saw in the private market, one expert says



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Amazon's Pl... low as

NEWS › TECHNOLOGY

August 4, 2017 12:50 p.m. Updated 08/09/2017


# Blue Apron to cut 24% of staff a month after IPO

By Bloomberg News



Apron saw in





Money is Cheap

Basic Execution is Easy

Talent is Scarce

Threat from one of The Four





Time well spent is when our top talent is focused and productive solving **only our most important and differentiating challenges.**

# RUN LESS SOFTWARE



Save Time - Choose “Standard” Technology

Save Time - Outsource Undifferentiated Heavy-Lifting

Spend Time - Create Enduring Competitive Advantage

# RUN LESS SOFTWARE

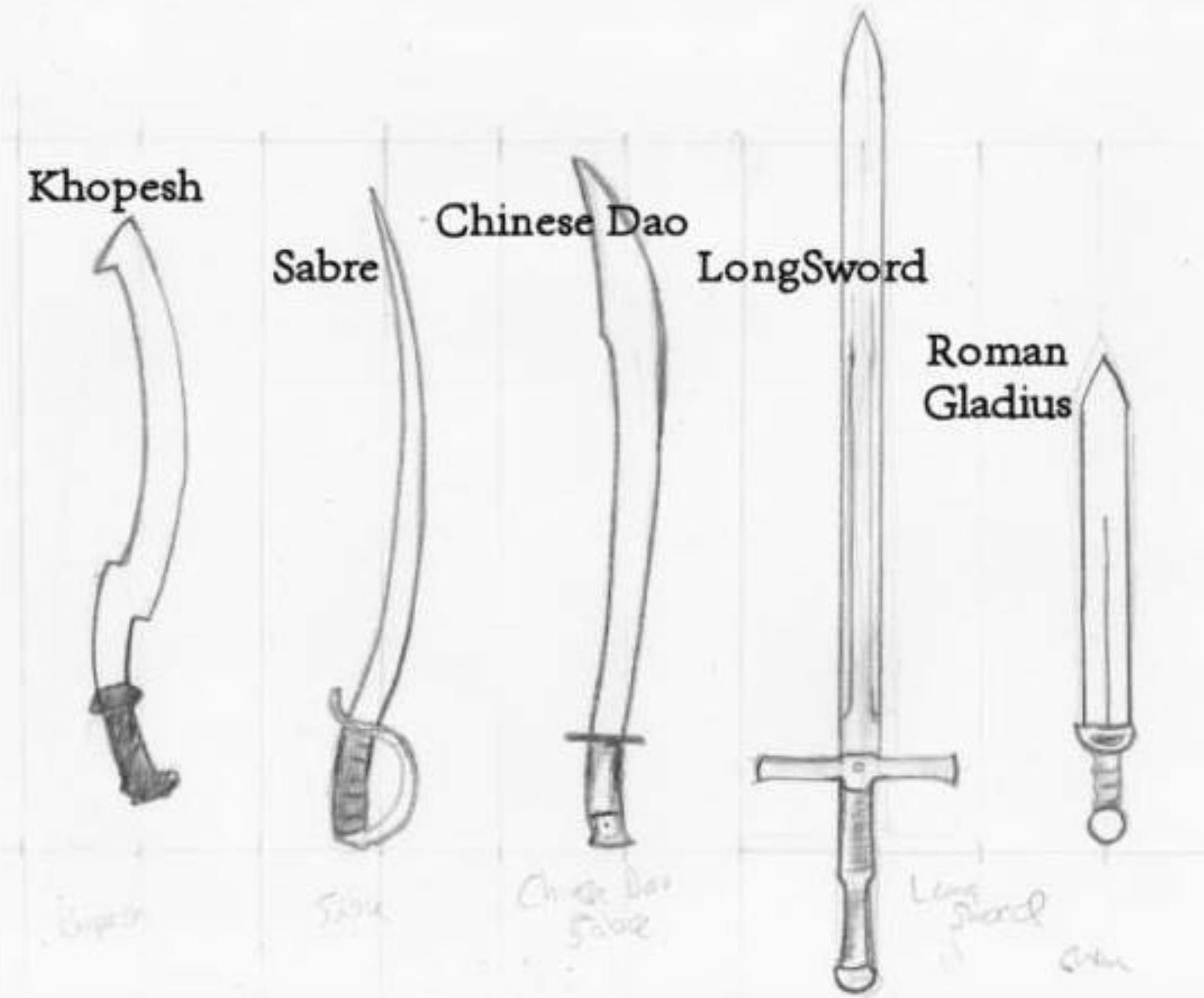


Save Time - Choose “Standard” Technology

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# Save Time - Choose “Standard” Technology



## ~~Choose Boring Technology~~

Solve problems by **constraining yourself**, mostly but not exclusively, to solving them with a small opinionated, company-specific **set of standard technologies**, that over time **you become expert in**. This will serve you well in the long run.

## **Chose Standard Technology**

# Dan McKinley

Math, Programming, and Minority Reports

## Choose Boring Technology

March 30th, 2015

Probably the single best thing to happen to me in my career was having had [Kellan](#) placed in charge of me. I stuck around long enough to see Kellan's technical decisionmaking start to bear fruit. I learned a great deal *from* this, but I also learned a great deal as a *result* of this. I would not have been free to become the engineer that wrote [Data Driven Products Now!](#) if Kellan had not been there to so thoroughly stick the landing on technology choices.



$$\text{Total Cost} = \sum (\text{Operations Cost}) - \sum (\text{Velocity Benefits})$$

Total Cost =  $\sum$  (Operations Cost) -  $\sum$  (Velocity Benefits)

Low Cost =  $\sum$  (Easy & Cheap) -  $\sum$  (Fast & Powerful)



	Technology	Intercom Standard 😎	Intercom Non-Standard 🤔
1	Programming Languages	Ruby & JavaScript	Java, Go, Python, etc.
2	Compute	AWS EC2 instances in our VPC	GCE, Azure, Heroku
3	RDMS	AWS RDS Aurora MySQL	AWS PostgreSQL, Native MySQL, Spanner
4	Key Value Store	AWS DynamoDB	MongoDB, Cassandra, Bigtable
5	Metrics, Monitoring	AWS CloudWatch, Datadog, Honeycomb	Graphite, Librato, Prometheus
6	Queues & Streams	AWS SQS & AWS Kinesis	RabbitMQ, Kafka
7	Search	Baremetal Elasticsearch	AWS Elasticsearch, AWS Cloudsearch, Solr
8	Email Delivery	Sparkpost	AWS SES, PowerMTA, Postfix
9	Real Time Messaging	Intercom Nexus	Pubnub, Pusher
10	Messenger	Intercom Messenger	<u>Layer.com</u>

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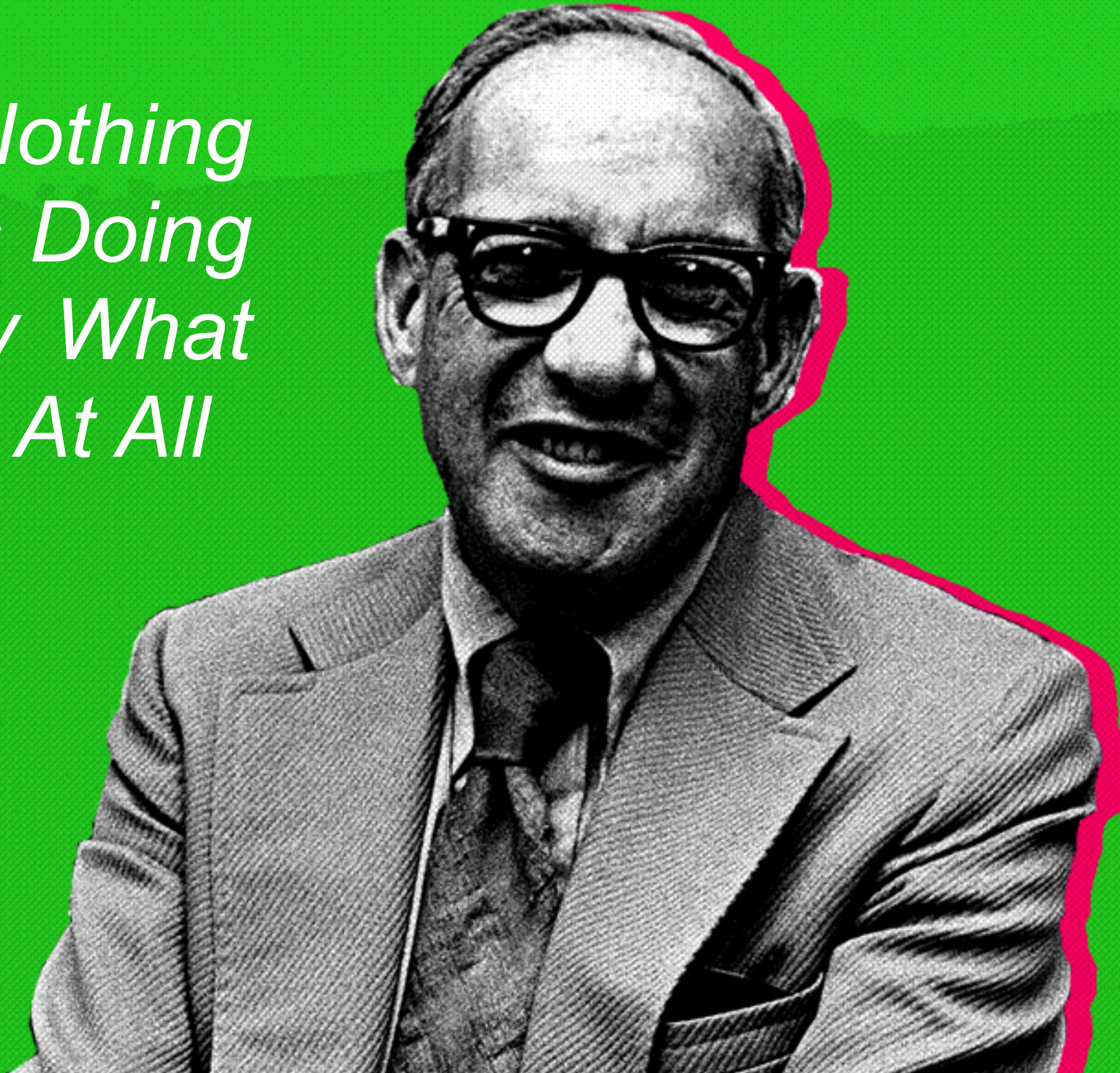


Save Time - Choose “Standard” Technology

Save Time - **Outsource Undifferentiated Heavy-Lifting**

Spend Time - Create Enduring Competitive Advantage

*There Is Surely Nothing  
Quite So Useless as Doing  
with Great Efficiency What  
Should Not Be Done At All*



***There's a lot of undifferentiated heavy lifting that stands between your idea and that success.***

***70% of your time, energy, and dollars go into the undifferentiated heavy lifting and only 30% of your energy, time, and dollars gets to go into the core kernel of your idea.***

***I think what people are excited about is that they're going to get a chance they see a future where they may be able to invert those two.***

**Jeff Bezos, Web 2.0 Summit, 2006**

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	<b>Undifferentiated Heavy-Lifting</b>	<b>Enduring Competitive Advantage</b>
<b>The Industry</b> 😞	<b>70%</b>	<b>30%</b>
<b>Intercom</b> 😎🦄🌈	<b>40%</b>	<b>60%</b>

**Tier 1 - AWS**

**Tier 2 - Best-in-class Companies**, public or late stage startups (Stripe, Sparkpost, Datadog)

**Tier 3 - Mid-stage Startups** (Greenhouse, Keen IO, VividCortex)

**Tier 4 - Young Startups** (Honeycomb, Foxpass, Notion)



# RUN LESS SOFTWARE



Save Time - Choose “Standard” Technology

Save Time - Outsource Undifferentiated Heavy-Lifting

Spend Time - **Create Enduring Competitive Advantage**



*The things you own, end up owning you.*

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Theory in **Action...**

## Example 1 - Consolidate all RDMS to AWS RDS MySQL

### Problem

**Cognitive and operational overhead of administering two DB technologies (AWS RDS MySQL and AWS RDS PostgreSQL).**

### Success Criteria

**Reduce the amount of knowledge / expertise the maintain our system.  
Simplify decision making when it comes to spinning up new services.**

### Decision

**Simplify decision making when it comes to spinning up new services.  
Bet that, although AWS proprietary and incur vendor lock-in, it will be worth it.**

### Outcome

**Awesome.  
AWS Aurora. Got 5X throughput at a 30% cost reduction.  
Happy to be more Awesome is coming.**

## Example 2 - Scaling User Storage with AWS Aurora and AWS DynamoDB

### Problem

1. Requires sustained and costly proactive maintenance
2. Configuration is rigid and hard to innovate upon
3. Inefficient to operate and expensive to scale
4. MongoDB is not “standard technology”

### Success Criteria

1. Easy and cheap to maintain, outsource undifferentiated heavy-lifting
2. Flexible configuration that is easy to iterate upon
3. Easy to scale, highly available
4. Built from “standard technology”

### Decision

Replace MongoDB with hybrid solution the uses both AWS Aurora and AWS DynamoDB

### Outcome

New solution is built from outsourced, Tier 1, “standard technology”.  
Natively scalable.  
90% reduction in \$\$\$ cost and 3 engineers freed up to work on USP.

## Example 3 - Rebuild native iOS and Android Inbox in EmberJS

### Problem

1. **Multi-Platform support for Intercom Inbox v. expensive**
  - implemented 3 times (Java, Objective C and EmberJS)
2. **Slow, infrequent, incomplete Native Mobile app updates**
  - big bang releases, slow/rigid app stores, and infinite long tail of app upgrades

### Success Criteria

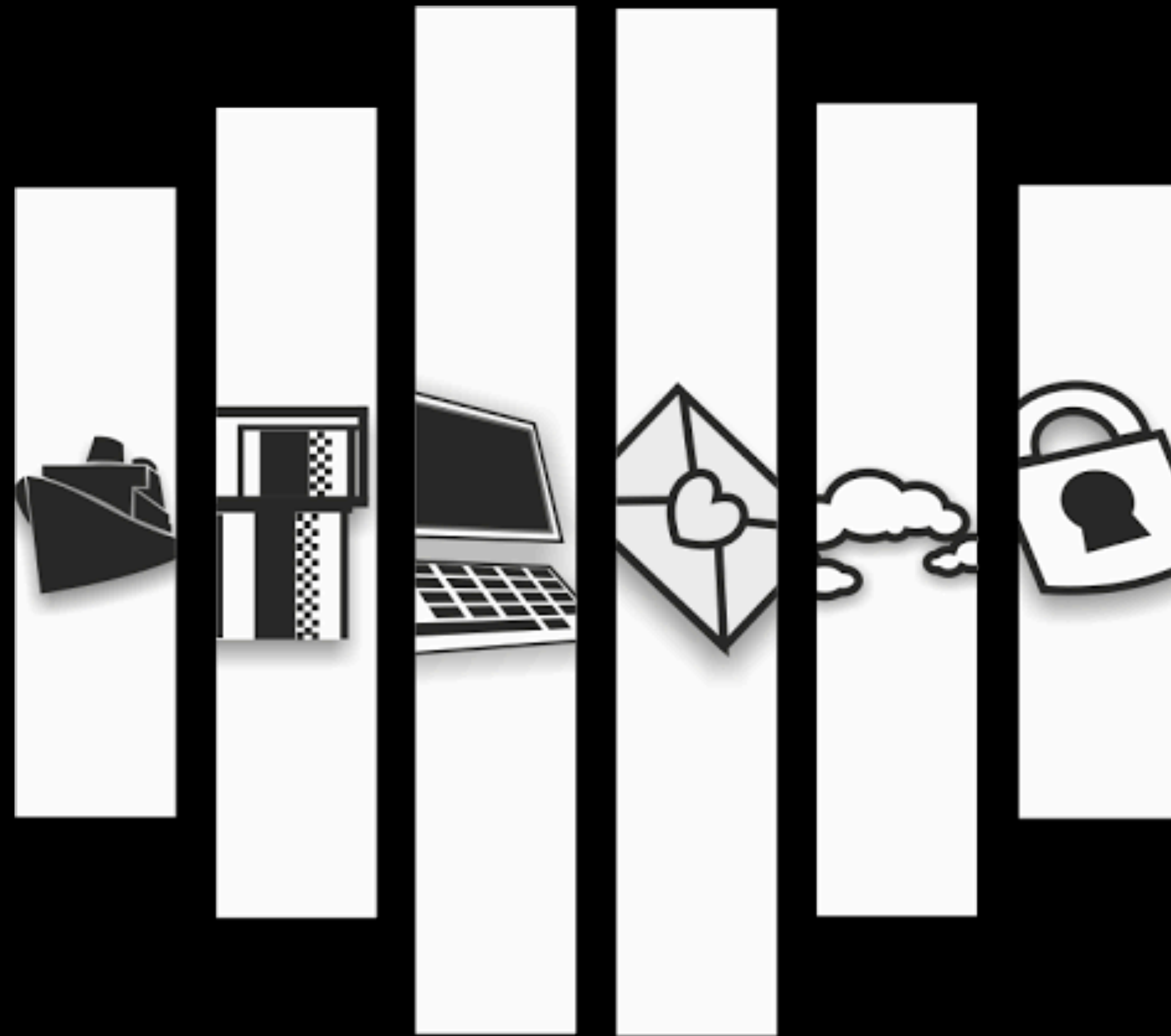
1. **Easier, cheaper, faster Inbox development and maintenance**
2. **Faster, more frequent, complete deployments**

### Decision

**Try out Ember engines to create web Inbox interface for iOS and Android app.**

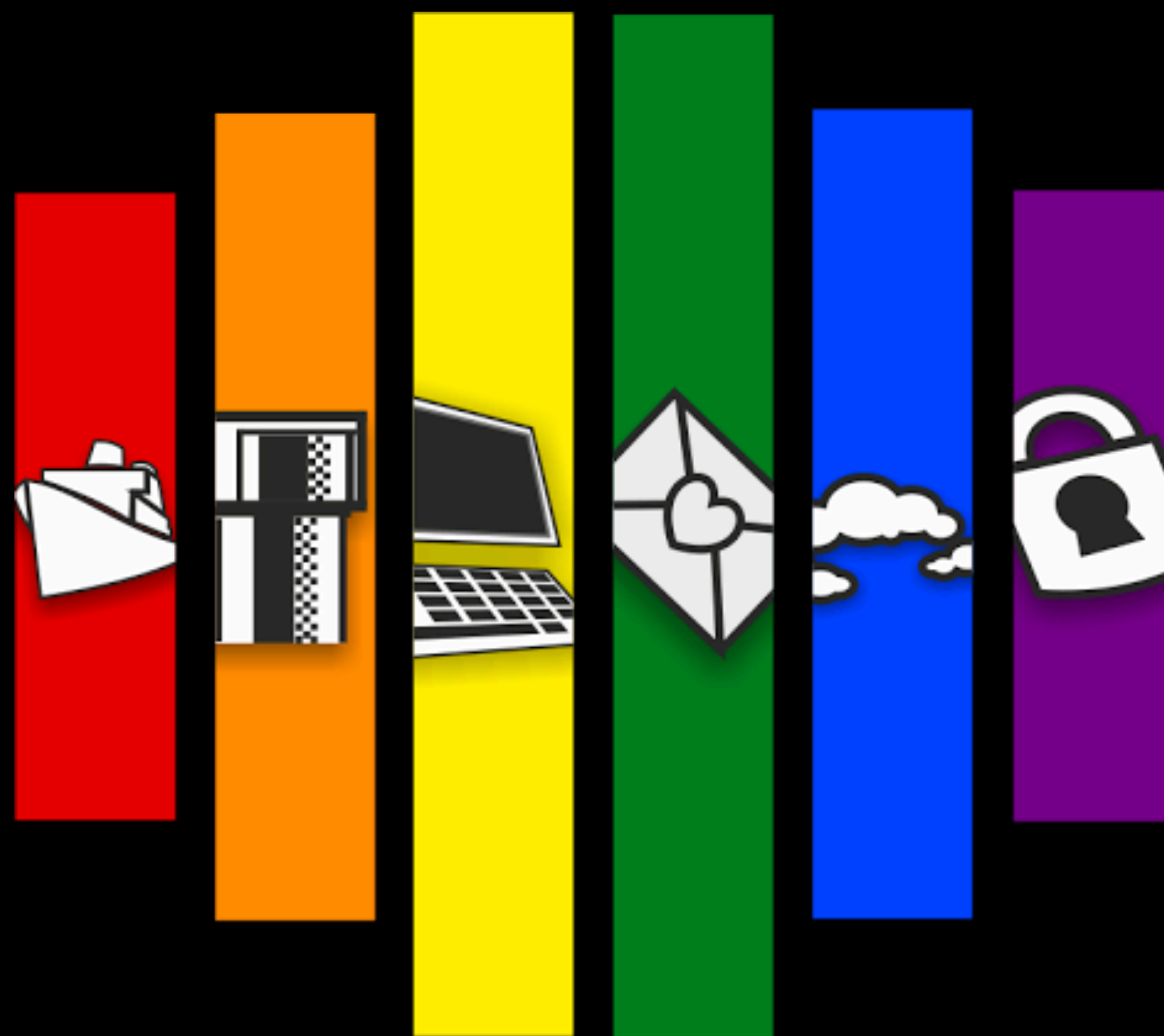
### Outcome

**Not so good / deferred**  
**Poor communication and planning by Leadership**  
**Net result - some learning and unsettled Mobile Engineers**  
**Lessons Learned? People are harder and more important than tech strategy**



FOUNDATIONS  
INTERCOM



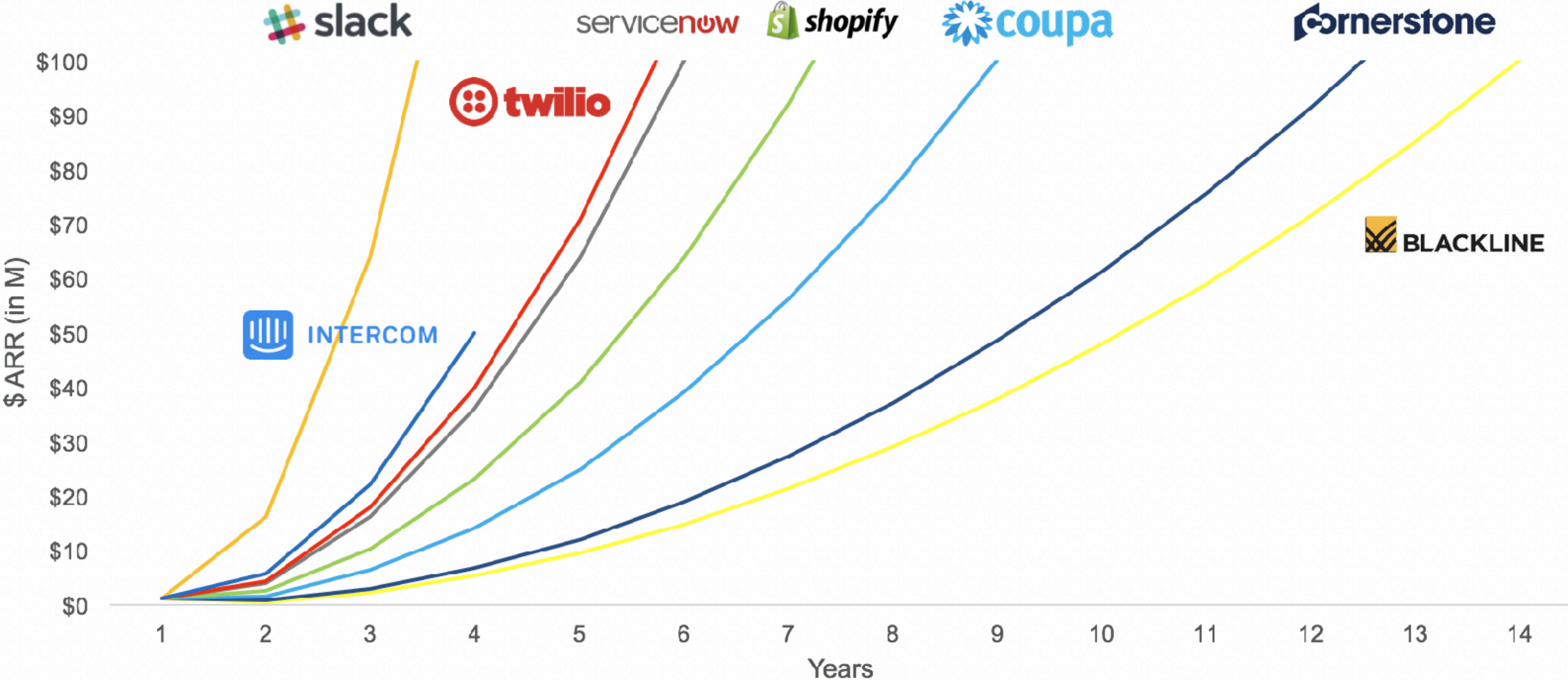


FOUNDATIONS  
INTERCOM

Technologist  
vs  
Problem Solver

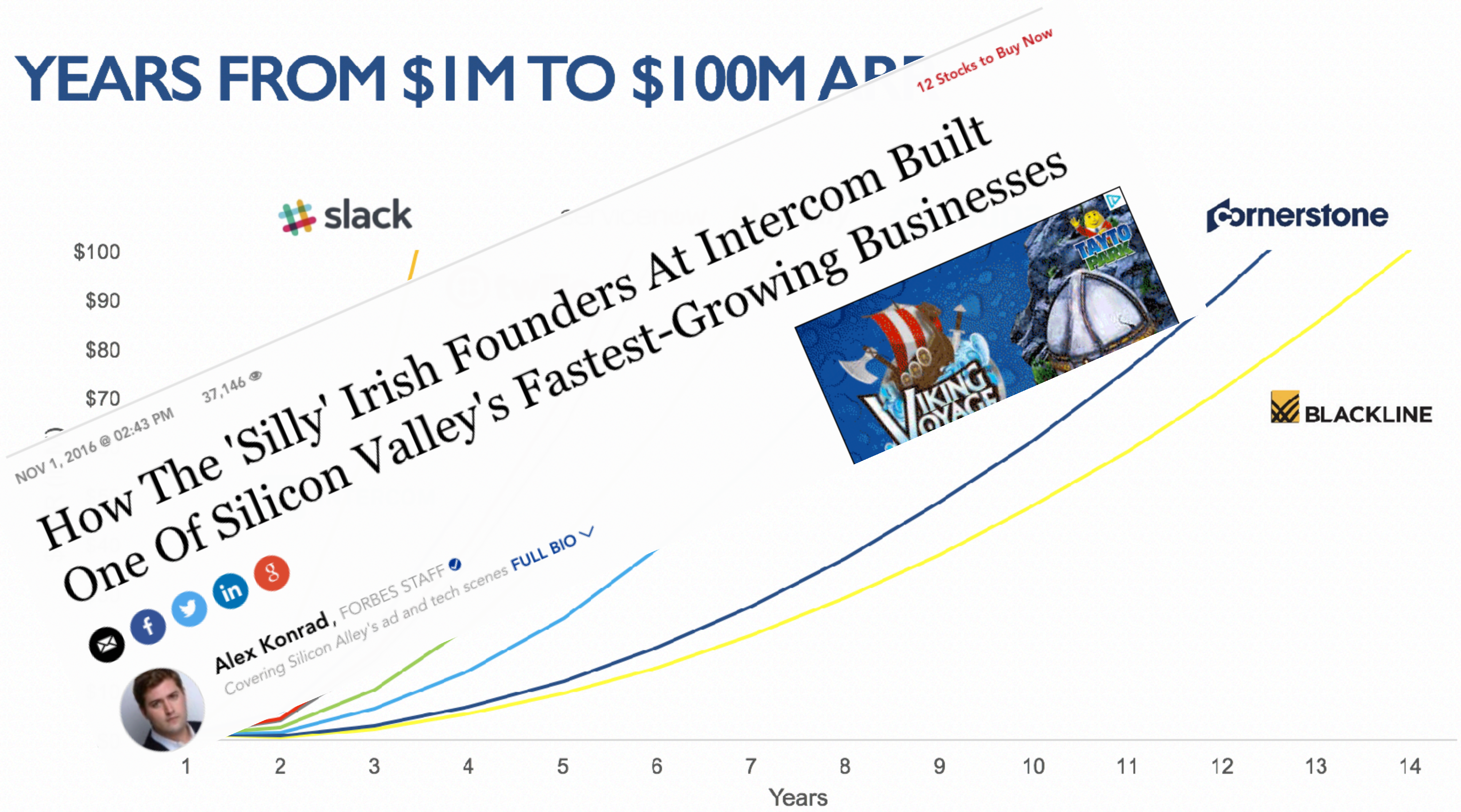
What's the **Prize**?

# YEARS FROM \$1M TO \$100M ARR



Source: Bessemer Venture Partners analysis for State of the Cloud 2017, and Intercom.  
Note: Use quarterly revenue times four as a proxy for ARR, and assume it takes 24 months from founding to \$1M ARR, if do not have actual data for either.

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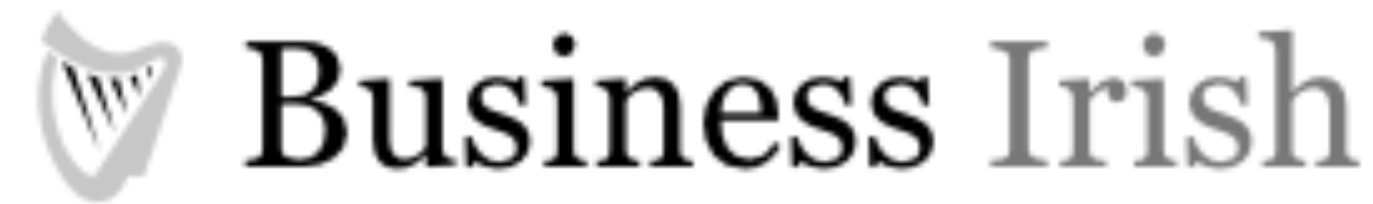
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# YEARS FROM \$1M TO \$100M ARR

12 Stocks to Buy Now



Irish Founders At Intercom Built  
World's Fastest-Growing Businesses



Wednesday 30 August 2017

Business Newsletter

## Irish tech star Intercom aiming for \$1bn valuation

Years

13

14

Source: Bessemer Venture Partners analysis for State of the Cloud 2017, and Intercom.

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# YEARS FROM \$1M TO \$100M ARR

12 Stocks to Buy Now

Intercom Built Businesses



**These figures show how Irish-founded Intercom has outpaced the Silicon Valley elite**

The company has gone from \$1m to \$50m in recurring revenue within three years.



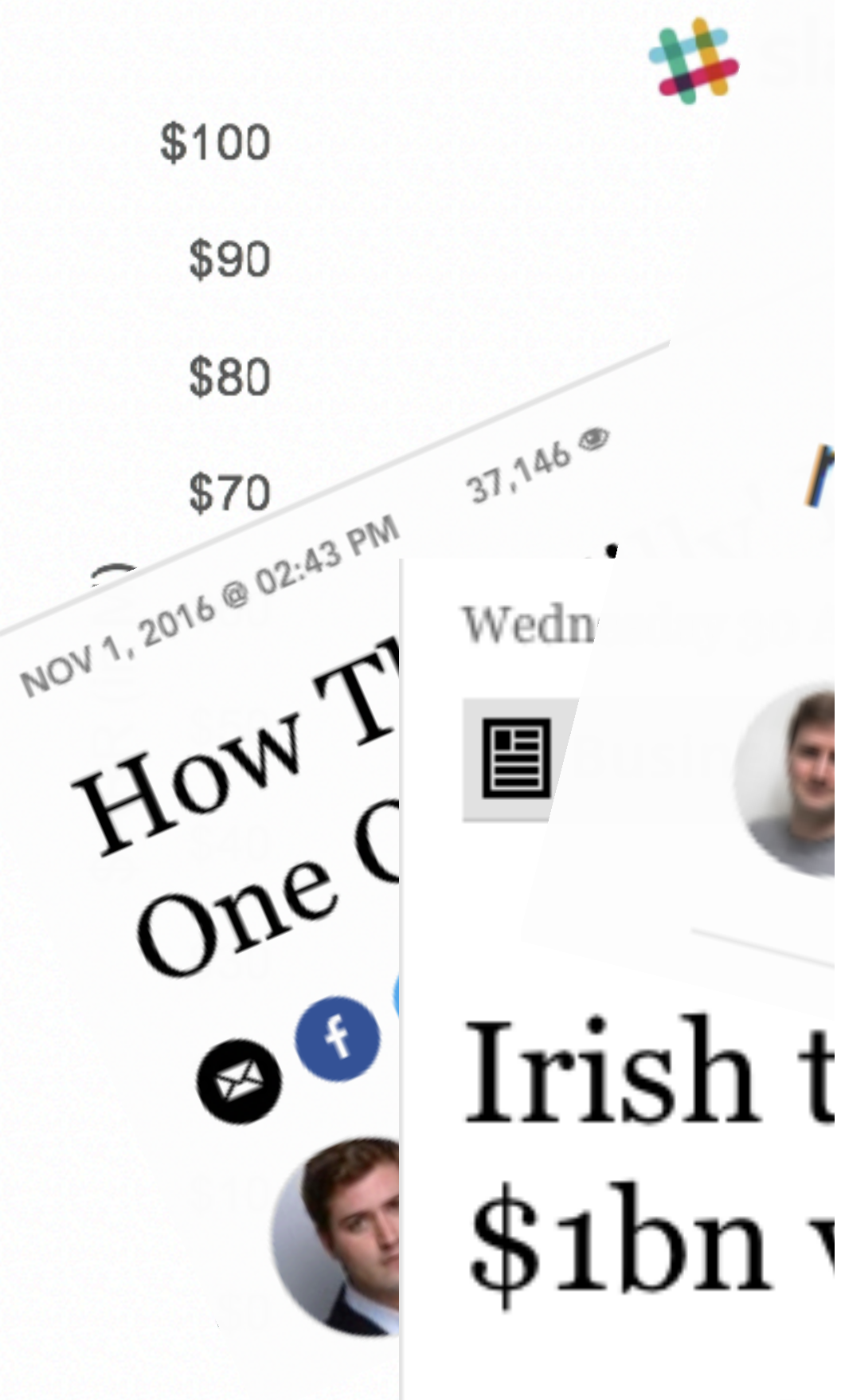
BY KILLIAN WOODS REPORTER, FORA  
FEBRUARY 23RD 2017 | 3 MIN READ

Irish tech...  
\$1bn valuation

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# YEARS FROM



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## Shipping is your company's heartbeat



DARRAGH CURRAN, VP OF ENGINEERING,  
INTERCOM  
@DARRAGHCURRAN

Software only becomes valuable when you ship it to customers. Before then it's just a costly accumulation of hard work and assumptions.

Cornerstone

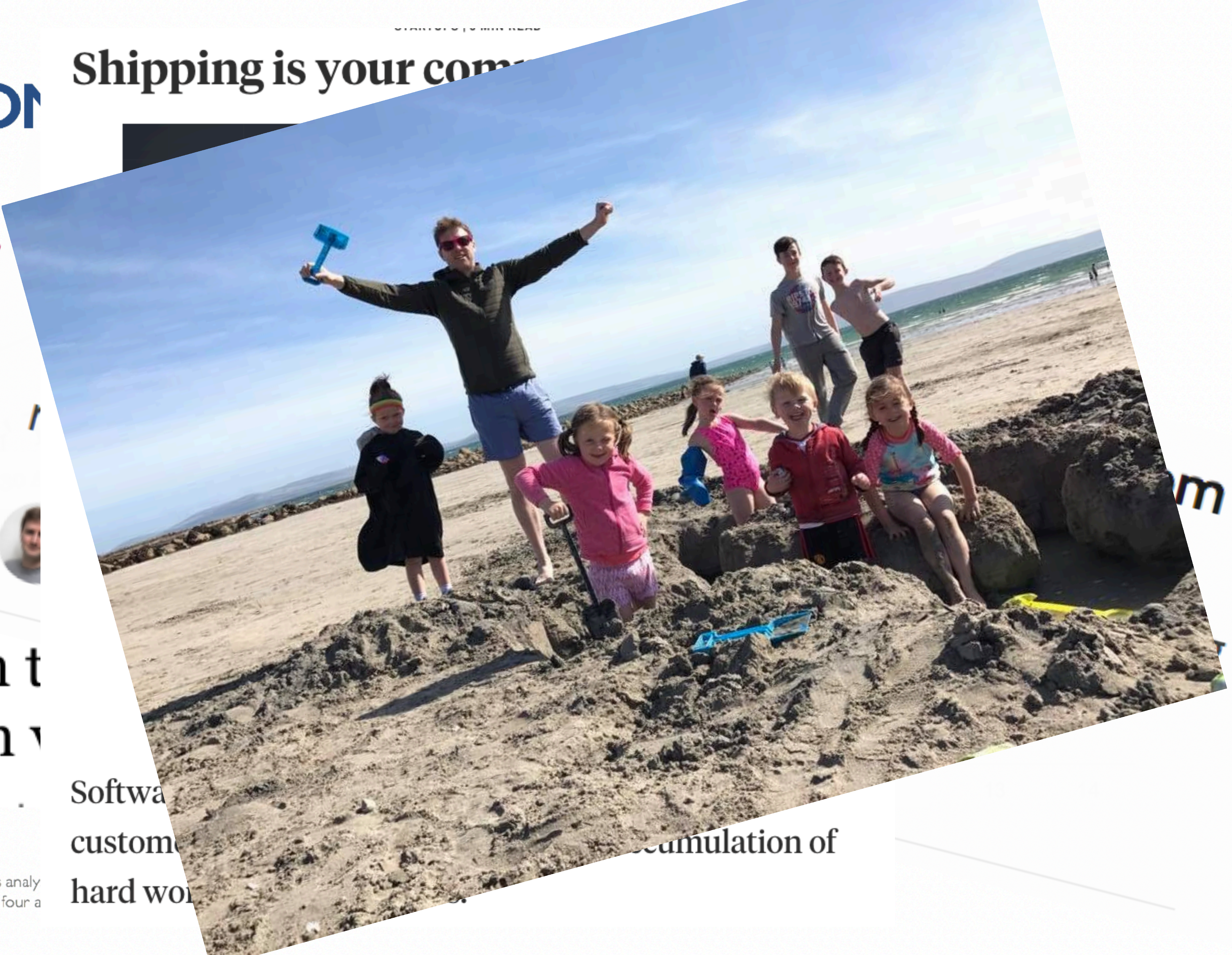
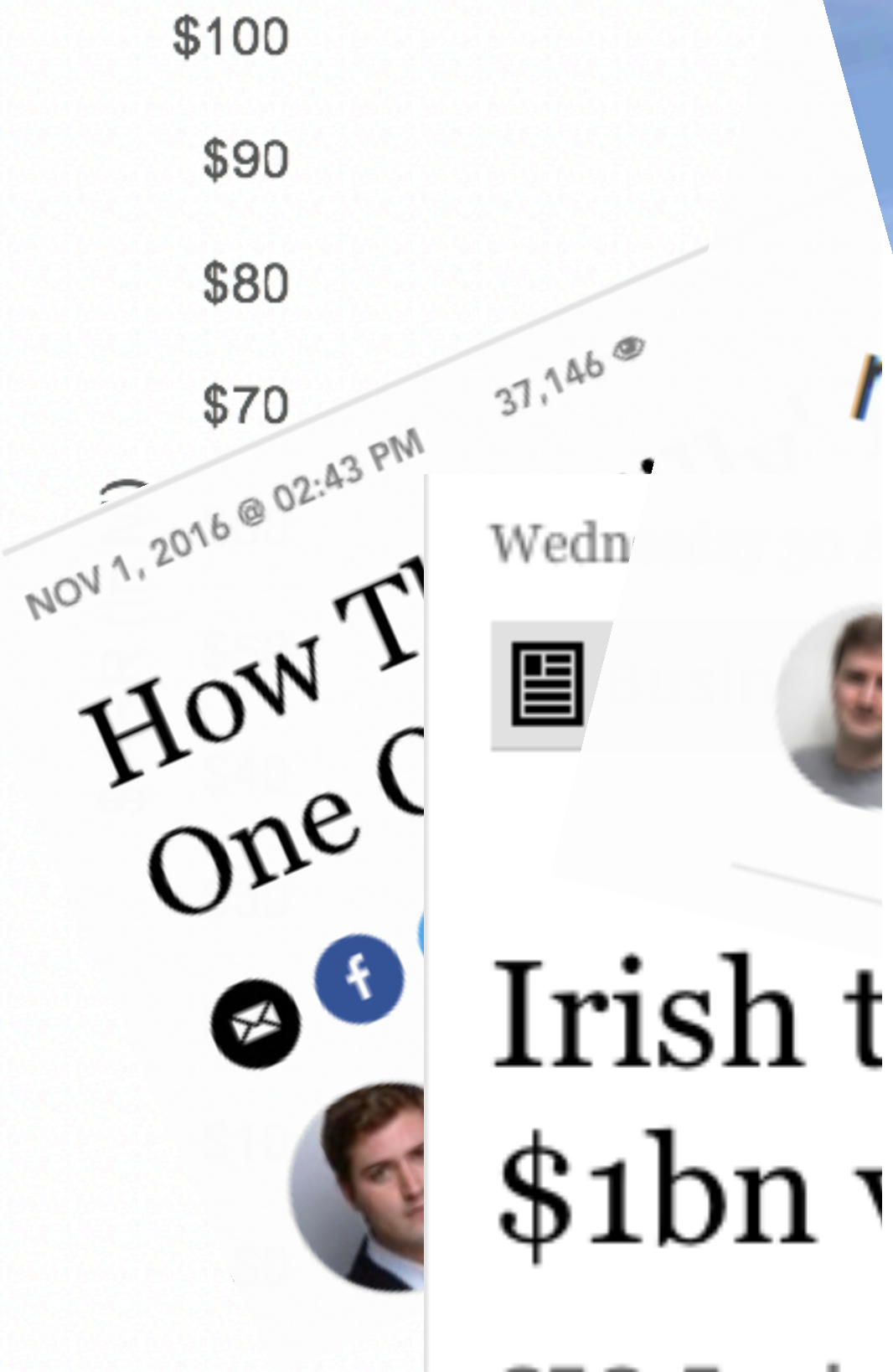
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# YEARS FROM

Shipping is your comp



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Source: Bessemer Venture Partners analy  
Note: Use quarterly revenue times four a

The End