



apptopia

Solving the app market with only grit, hustle, and a Spark cluster

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VP of Analytics

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@Apptopia

30 minutes is a lot to ask



I want to fill your pockets

Who are we?



**Apptopia is a mobile app
intelligence company**

Company Overview



~40 employees



~6 years in business



Trusted by > 35,000 publishers
worldwide.



>\$4m raised from major investors like:



500
startups

YAHOO!

Standing “on the shoulders of giants”



Eli Sapir
Co-Founder & CEO



Jonathan Kay
Co-Founder & COO



Serge Balyuk
VP of Engineering

We power mobile intel data for the best



facebook® **Google**

 **verizon**wireless

 **Localytics**

Aol. **ticketmaster**®

 **OPERA**
MEDIWORKS

 **optimizely**

**ANDREESSEN
HOROWITZ**

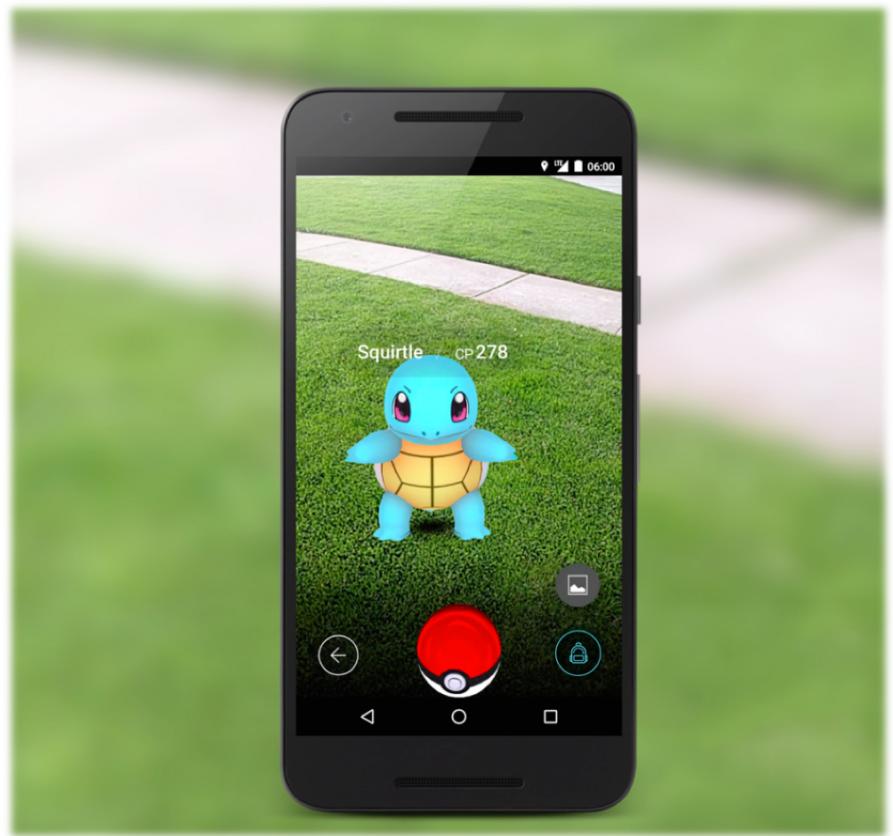


 General Catalyst
Partners

 **emergence**
CAPITAL

Apptopia empowers mobile stakeholders

There is so much more to mobile than games

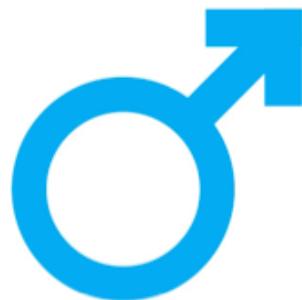


User demographics and behavior

Wealthfront



97% 3%



GoToWebinar

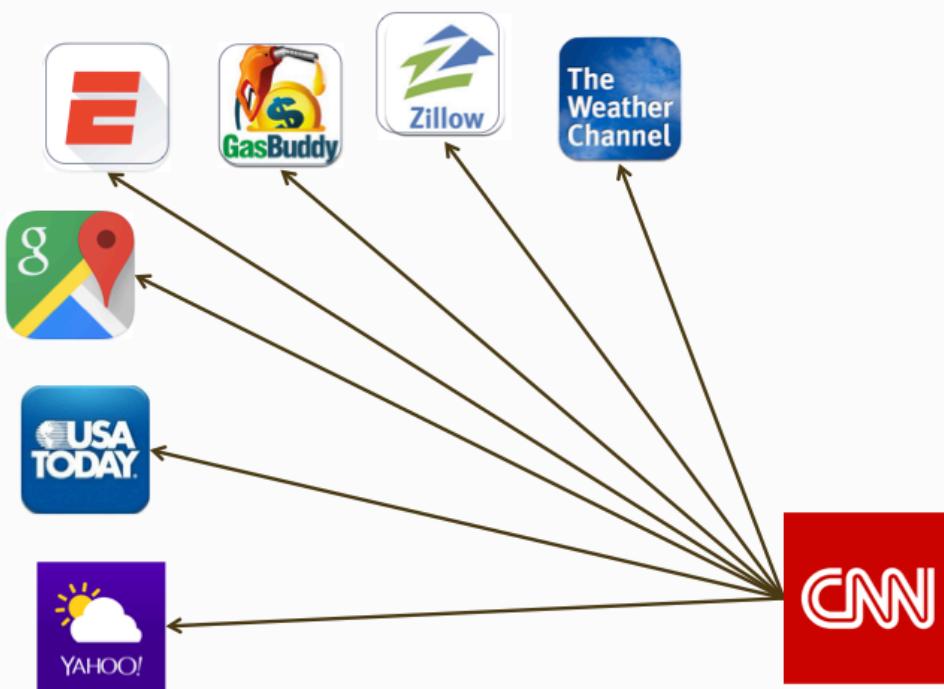


40% 60%

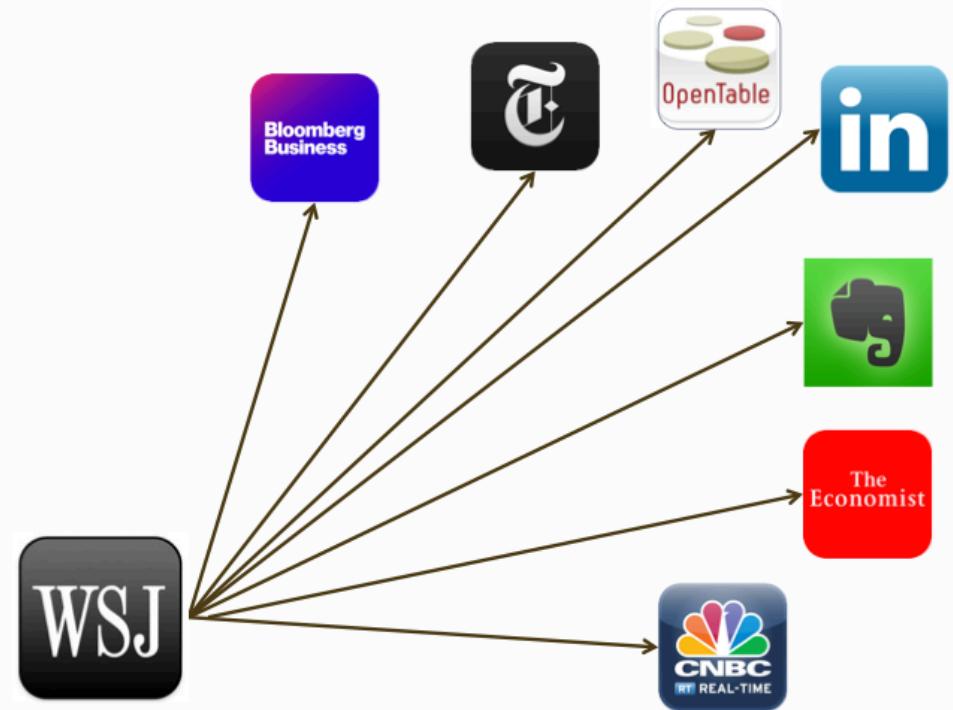


Connecting the dots

“CASUAL USER”

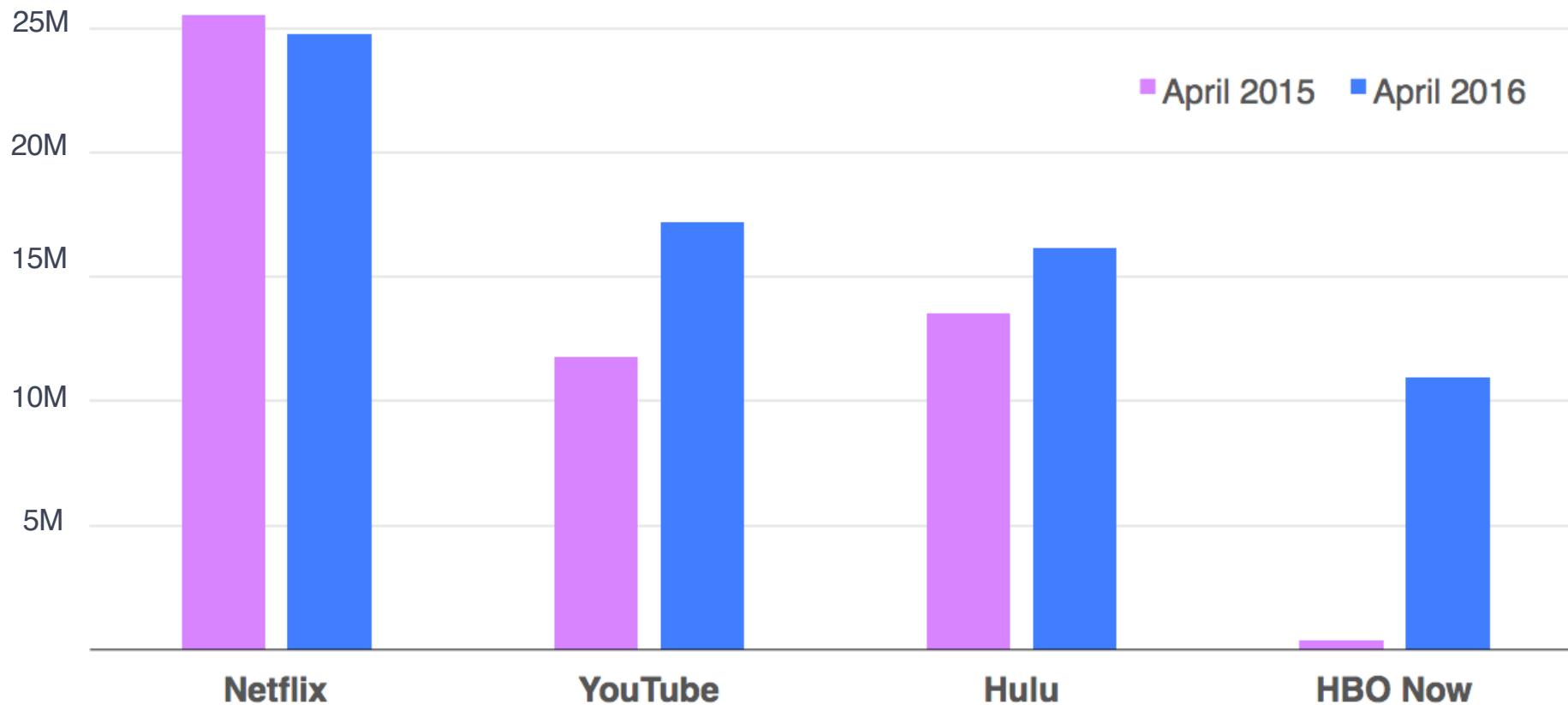


“BUSINESS USER”

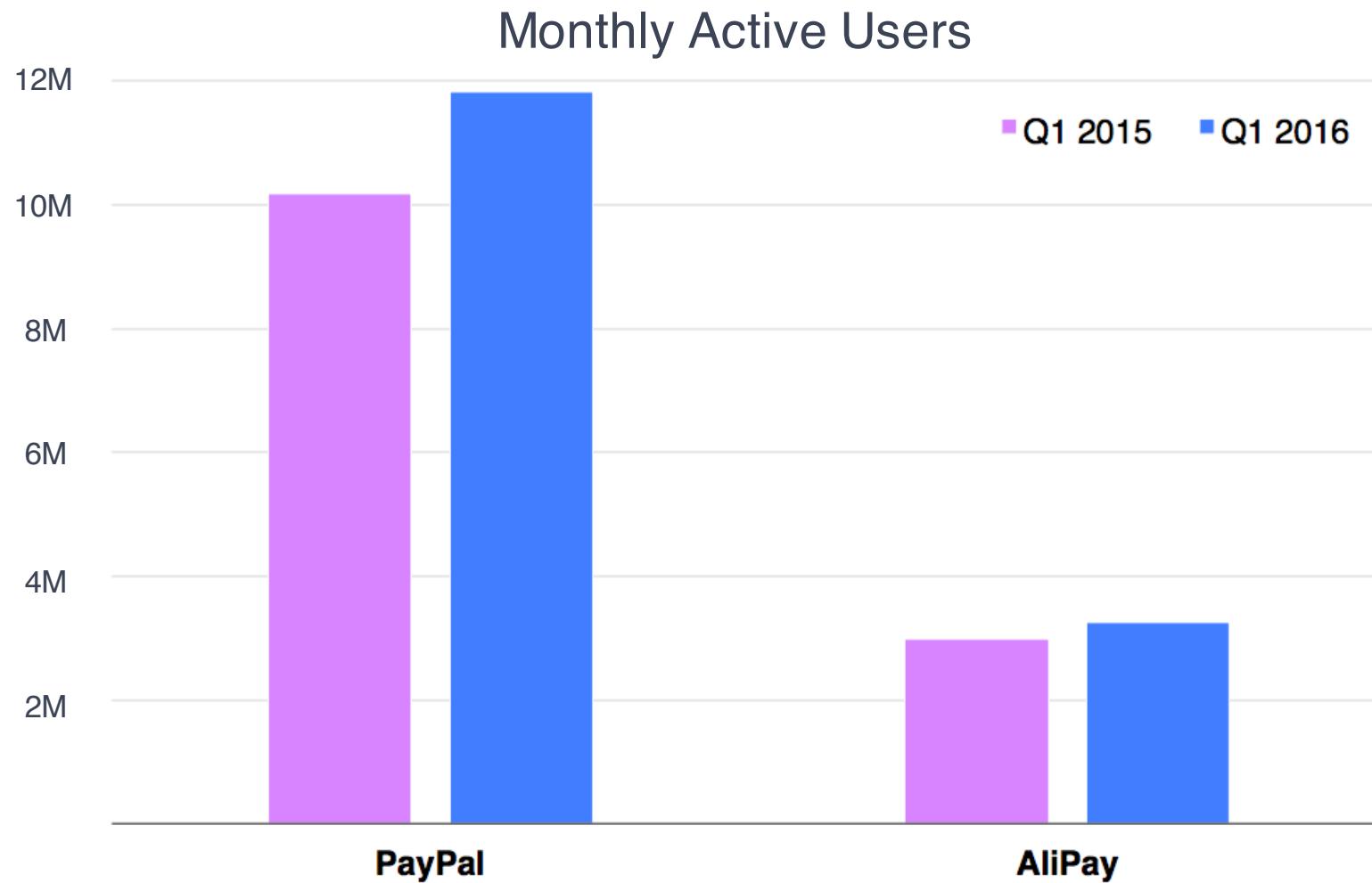


Competitive intelligence

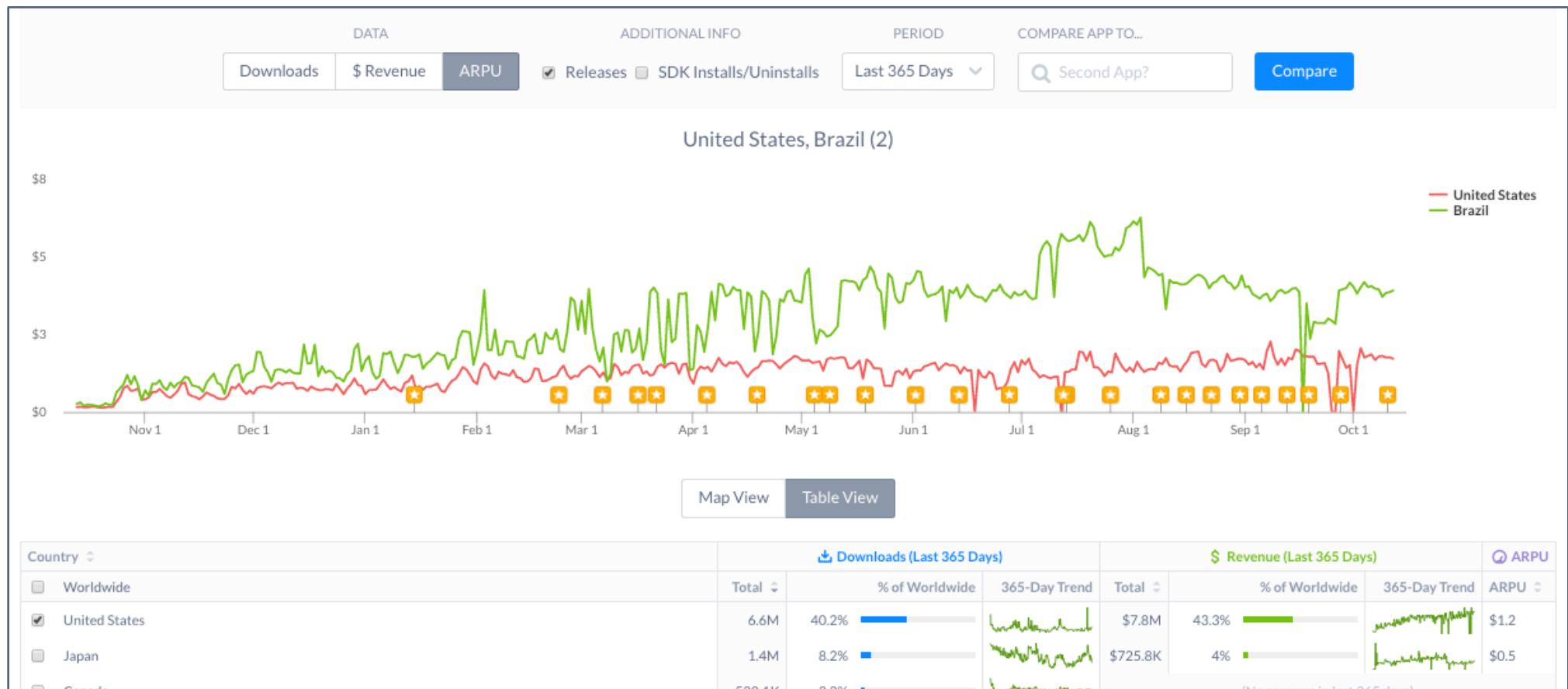
Worldwide Downloads



Investment decisions



Advertising optimization



**Apptopia is on a mission to
solve the app market**

APACHE
Spark™ has empowered us.

We combine public and proprietary data

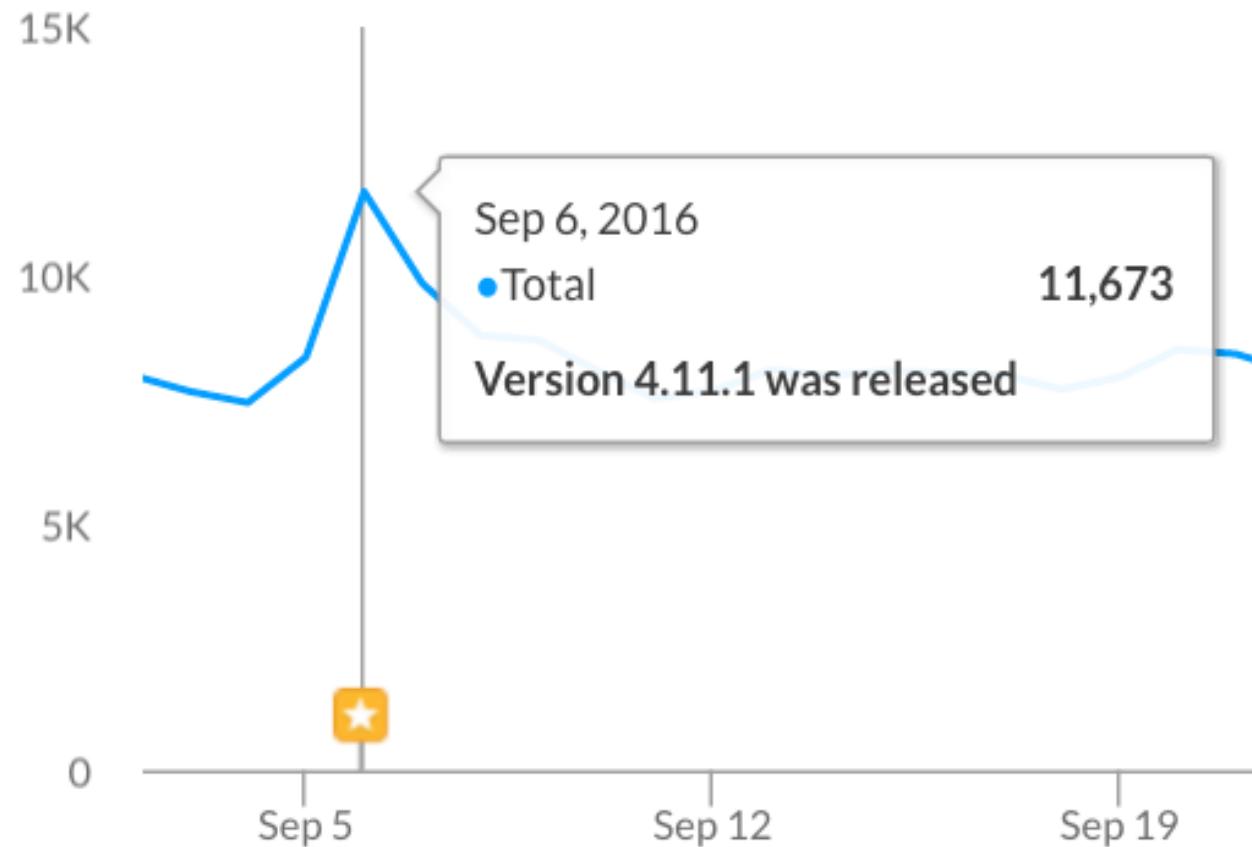


Public data is predictive of performance



Mint: Money Manager, Budget & Person...

• iOS App Store • Free • Mint.com • Finance > Productivity



Rank is the most predictive feature



Instagram

Current Rank (Free)

(Today, Oct 20, 2016)

United States ▾

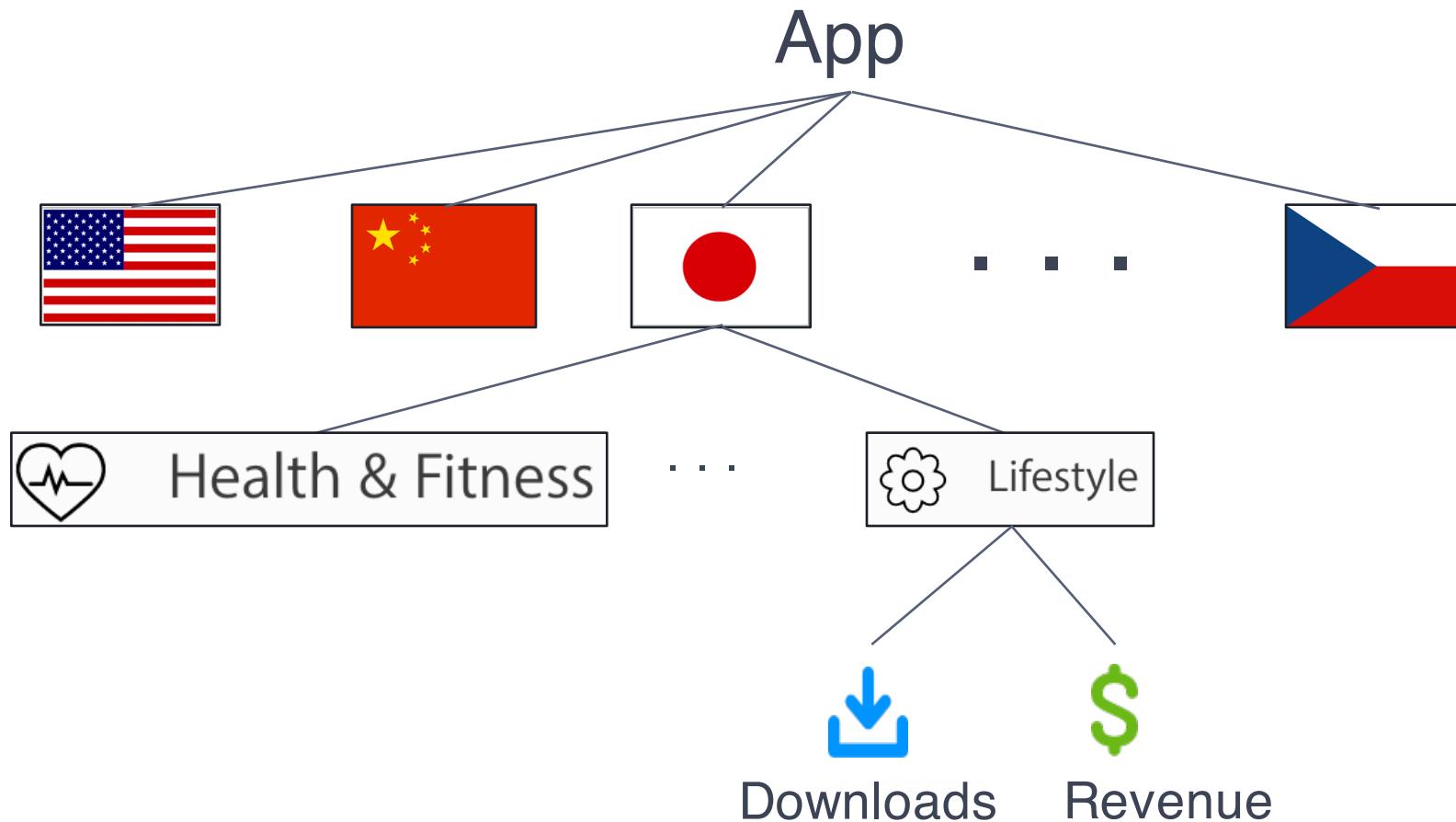
Top Overall

Photo & Video

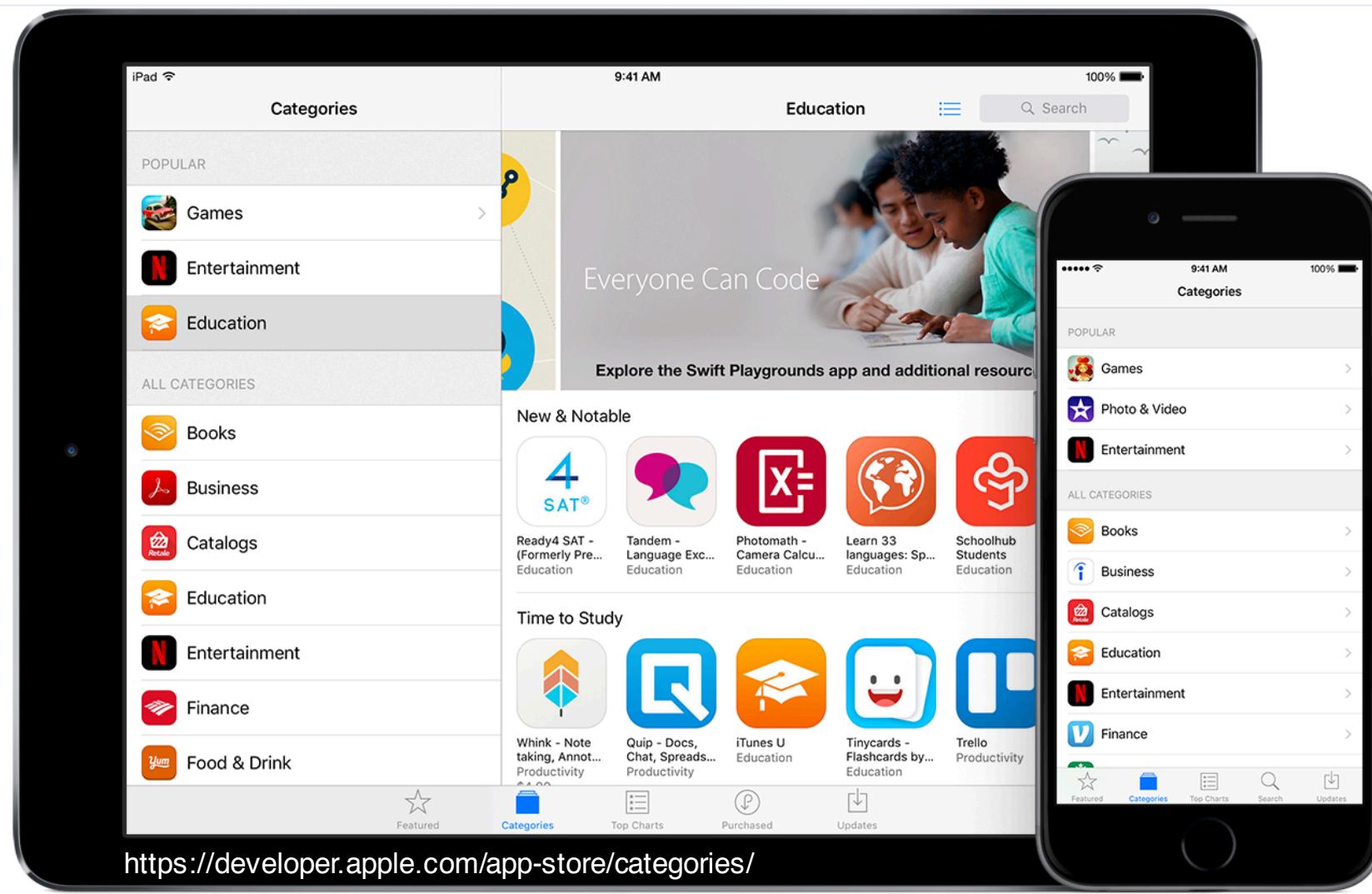
Rank	App Name	30-day Range
7	Plants vs. Zombies™ Heroes	7–21
8	Messenger	7–15
9	Facebook	9–17
10	YouTube	7–15
11	Snapchat	7–13
12	Instagram	8–15

Rank	App Name	30-day Range
1	iMovie	1–1
2	YouTube	2–5
3	Snapchat	2–4
4	Instagram	2–5
5	Artisto – Video and Photo Ed...	2–132
6	Layout from Instagram	5–7

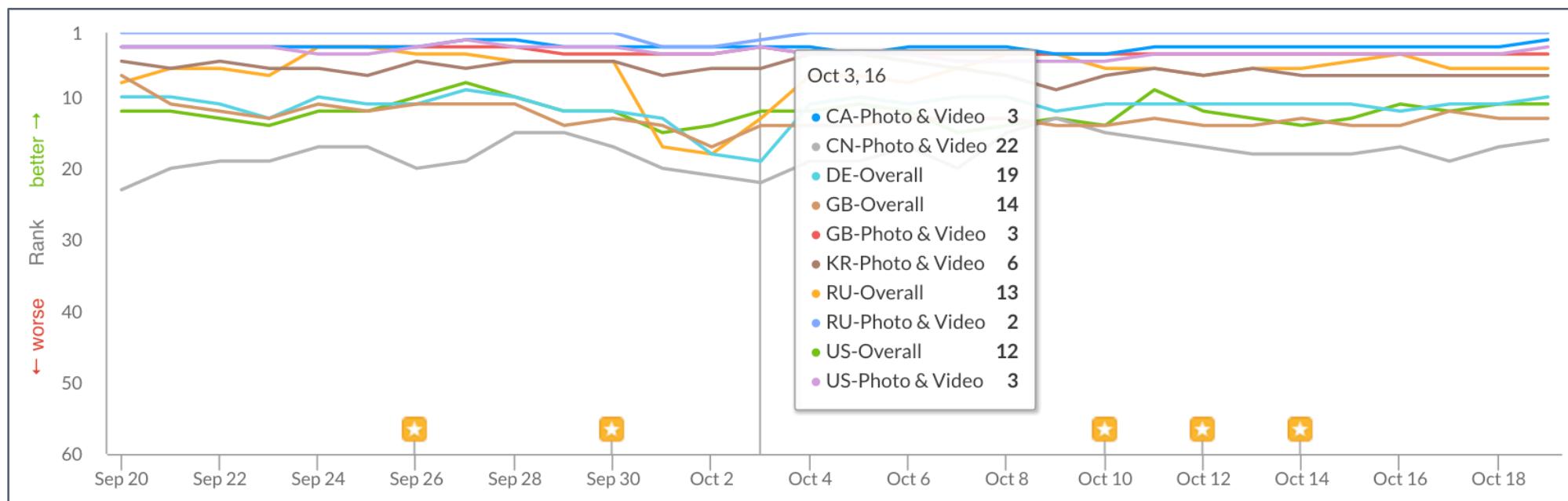
Rank is also the most complex (i.e., fun) feature



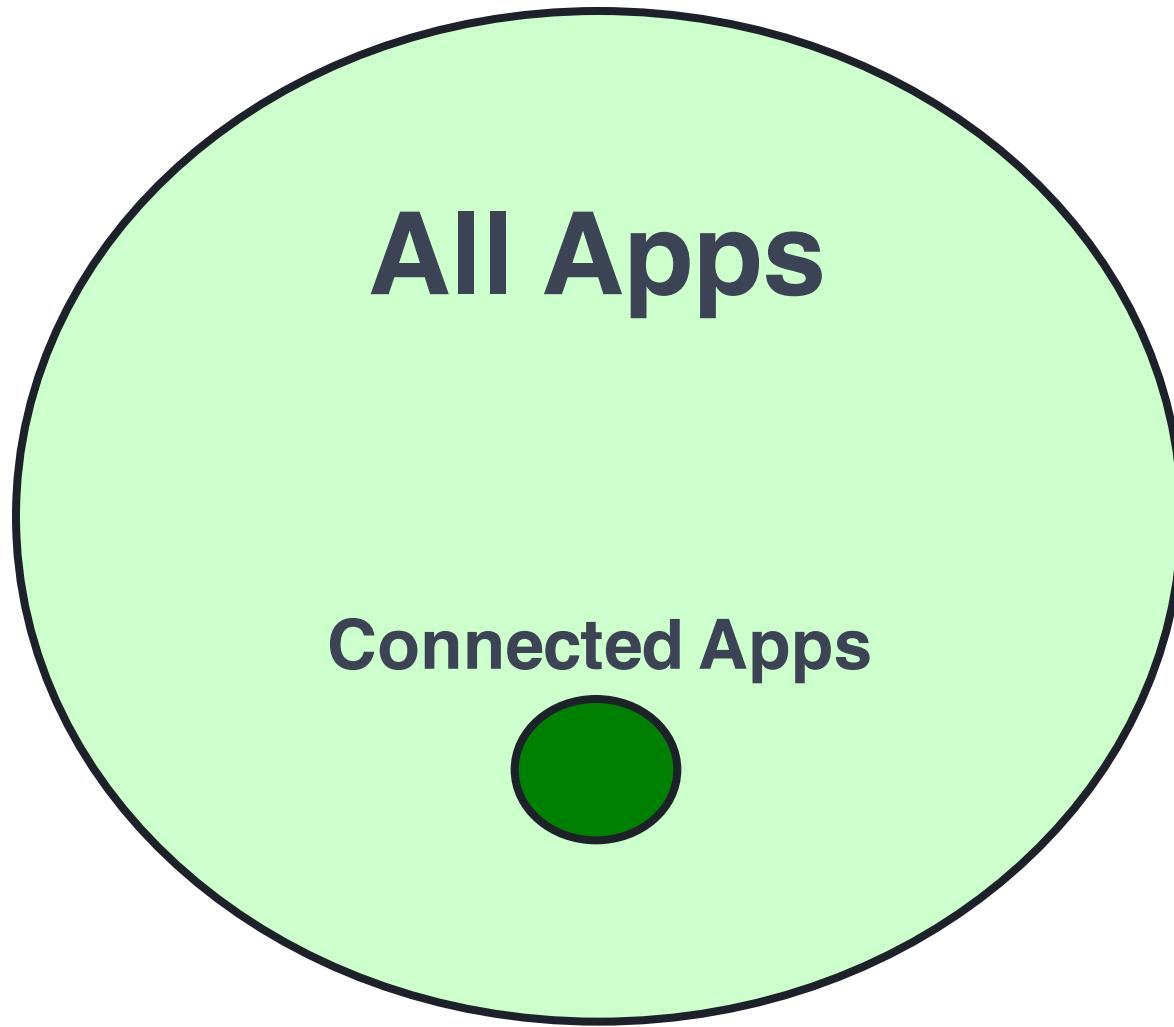
There are many categories and sub-categories



The constellation of ranks is complex and constantly evolving



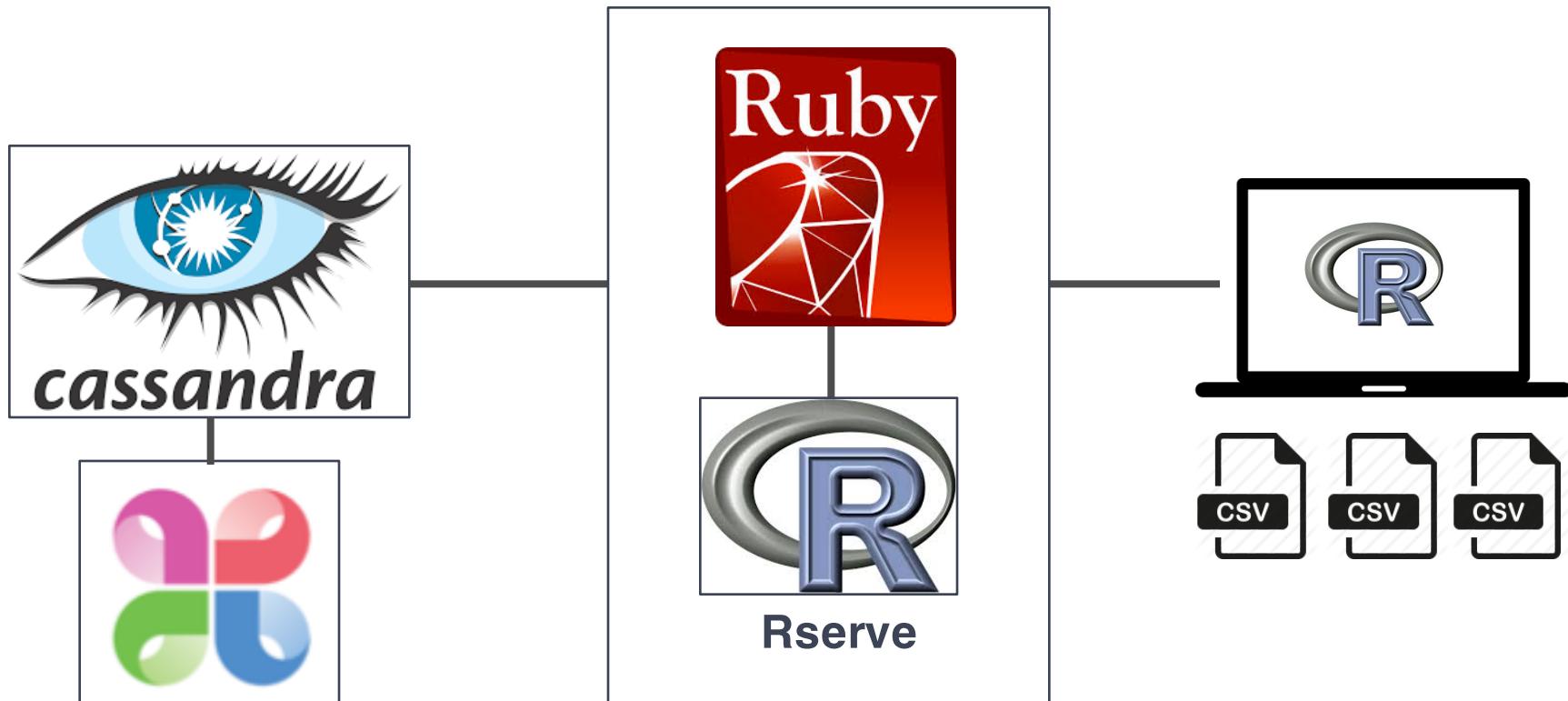
We build models with data from connected apps



For any app, day, country

How transformed us

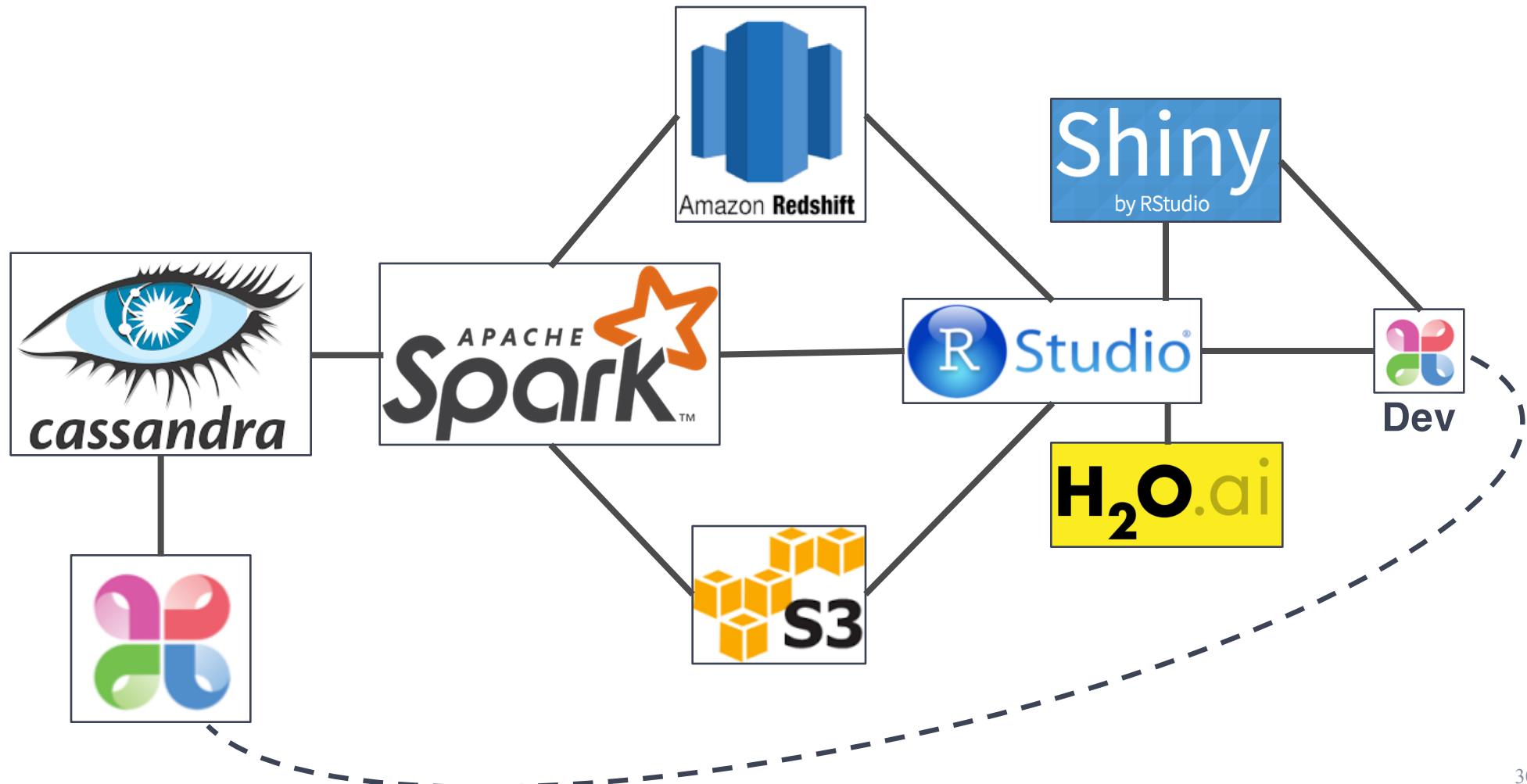
First generation training and scoring



This was not a viable path forward

Slow scoring (~2 months)

Project Khaleesi



2 months to 2 days



**Systematically compare
hundreds of models using
20x more data**



Spark and other open source tools have transformed us

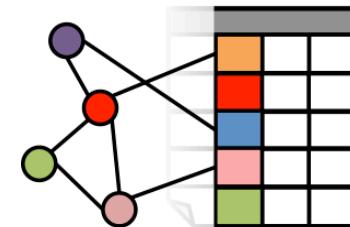




Where do we go from here?



The global app market is a complex dynamical system



GraphX

Competitiveness App





Focus as we scale

Here's 4 things we learned

**First solve for the human
side of the equation**

Avoidance should precede optimization

Make big data small data

$$A = \begin{bmatrix} a & b \\ c & d \end{bmatrix} \quad A^{-1} = \frac{1}{|A|} \begin{bmatrix} d & -b \\ -c & a \end{bmatrix}$$

**Edges are more important
than nodes**

Thank You





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