Developing Wearable Apps that Earn User Loyalty

Damian Roskill
VP, Marketing | droskill@applause.com

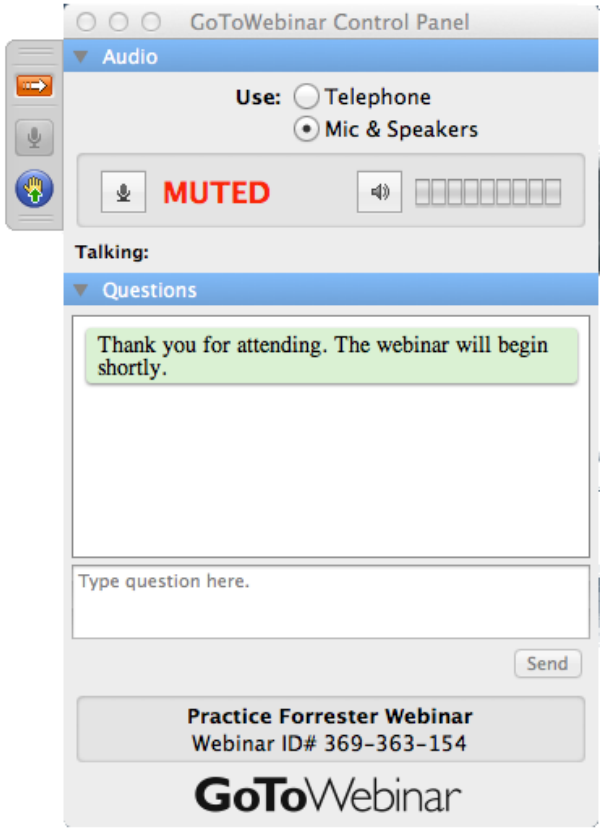
APPLAUSE®

Damian Roskill
VP, Marketing
Applause, Inc
@droskill
droskill@applause.com

WEBINAR LOGISTICS

APPLAUSE®

- **Today's webinar will be recorded. You will be emailed a link.**
- **Please enter your questions in the Question box. We will answer as many as possible at the end.**
- **If you're having technical difficulties, try logging in with a different browser.**
- **The Twitter hashtag for today's webinar is #applausewearables**



APPLAUSE®

- **The state of wearable adoption**
- **Satisfying lofty user expectations**
- **The 5 biggest challenges of developing high-quality experiences**
- **Wearable testing best practices**
- **Q&A / upcoming customer experience webinar**

MOBILE IN 2005

APPLAUSE®

APPLAUSE®

WEARABLES A FEW YEARS AGO

APPLAUSE®

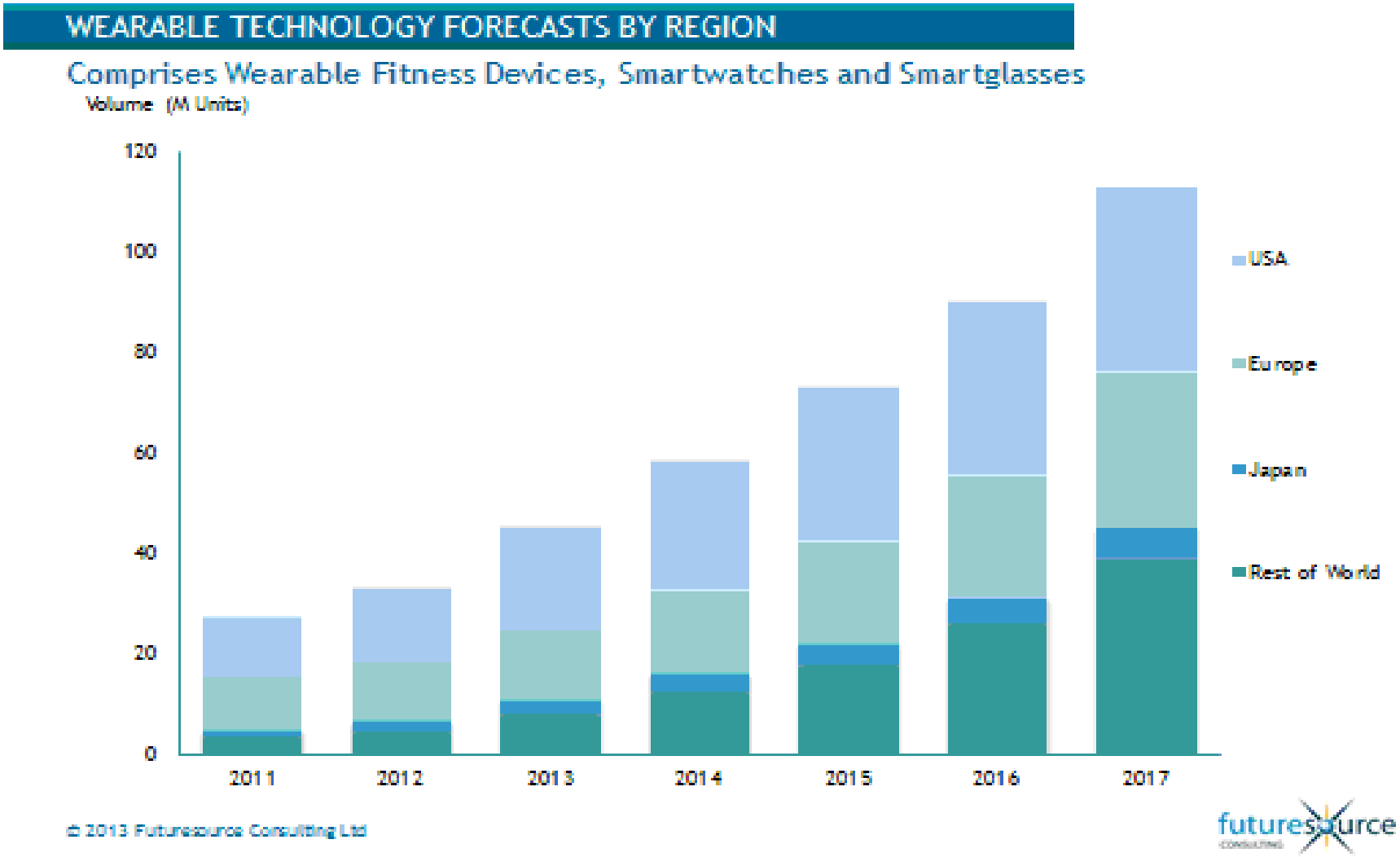
APPLAUSE®

APPLAUSE®

Global Wearable Device Unit Shipments Forecast
BI INTELLIGENCE
Rest Of Wearables Market
Fitness Bands And Other Activity Trackers
35% CAGR 2014-2019
We Are Here
Smartwatches
160
140
120
100
80
60
40
20
0
Millions Of Units Shipped Annually
2010
2011
2012
2013E
2014E
2015E
2016E
2017E
2018E
2019E
Source: BI Intelligence Estimates

APPLAUSE®

User Adoption of Connected Devices

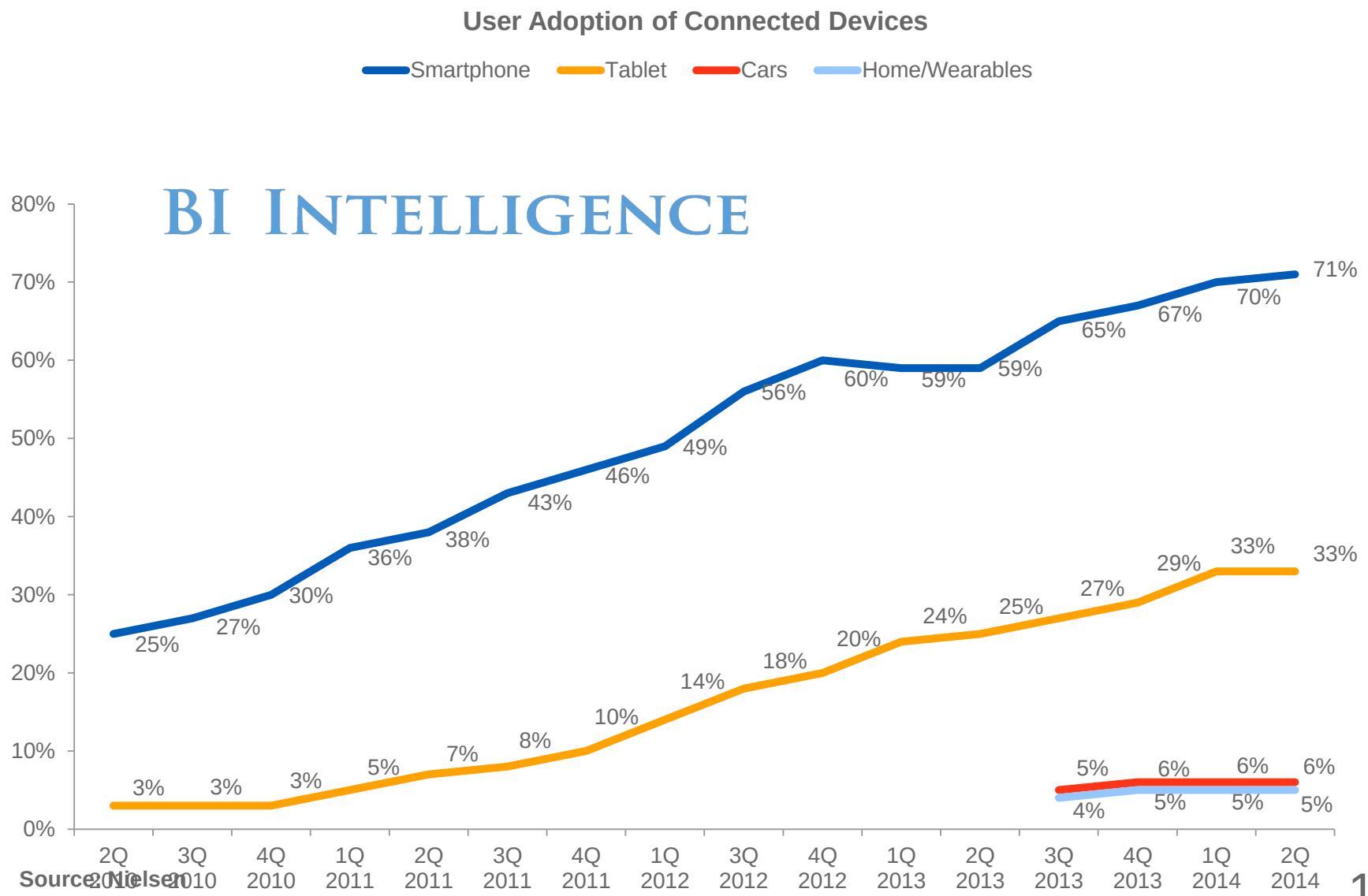


OR IS IT GROWING?

...

ADOPTION MAY BE SLOWING

APPLAUSE®



Source: Nielsen

AND USERS ARE CHURNING

APPLAUSE®

theguardian

Google™ Custom Search | Search

News | US | World | Sports | Comment | Culture | Business | Money | Environment | Science | Travel | Tech | Media | Life & style | Data

News › Technology › Wearable technology

Wearables: one-third of consumers abandoning devices

Hundreds of Galaxy Gear smartwatches are listed on eBay barely six months after launch. Why isn't the wearable tech market taking off?

Share 650 | Tweet 1,844 | +1 170 | Share 589 | Email

Charles Arthur
Follow @charlesarthur Follow @guardiantech
theguardian.com, Tuesday 1 April 2014 07.31 EDT
Jump to comments (167)

A UK eBay listing for a Samsung Galaxy Gear smartwatch: the seller says they got it free and don't want it. Photograph: Guardian

The advert was blunt: a second-hand Samsung Galaxy Gear smartwatch for sale, priced at "£100 ONO". For a device which cost £299 in September, surely that's a bargain?

Technology
Wearable technology · Smartwatches · Smartphones · Software · Android · Google

Life and style
Fitness

More analysis

Crack the code to win a tour of the Science Museum

Win an all expenses paid trip to London and a tour of the new Information Age exhibition at the Science Museum, if you can crack the Morse code.

Click here to find out

Today's best video

Amateur footage shows ferocity of blizzard in Himalayas
Amateur footage shot by British hiker Paul Sherridan shows the deadly blizzard that engulfed Nepal's popular Annapurna trail in the Himalayas

'Sex toy' sculpture raises eyebrows
Inflatable sculpture causes stir in Paris for its resemblance to a sex toy

New dinosaur species remains discovered
Scientists discover the remains of a new species of dinosaur in Venezuela

The Judge, Northern Soul, Palo Alto and Citizenfour: Guardian film show
Our film critics review this week's releases

29 comments

AND PRICES ARE DROPPING FAST

APPLAUSE®

ebay Shop by category | galaxy Gear | Smart Watches

Refine your search for galaxy Gear

Categories
Cell Phones & Accessories
Smart Watches

Brand see all
- Samsung (857)
- Unbranded/Generic (32)

Band Color see all
- Black (78)
- White (15)

Compatible Operating System see all

Condition see all
- New (524)
- New other (see details) (125)
- Manufacturer refurbished (31)
- Seller refurbished (18)
- Used (226)
- For parts or not working (20)

Price
$ to $ Go

Format see all
- All Listings (944)
- Auction (235)
- Buy It Now (776)

Item Location see all
- Default

All Listings | Auction | Buy It Now

Sort: Best Match View:

All > Cell Phones & Accessories > Smart Watches

galaxy Gear 944 listings + Follow this search

Samsung Galaxy Gear 2 Neo SM-R381 Smart Watch Heart Monitor - Charcoal Black

♥Unbeatable Price♥Trusted Seller ♥ Fast Free Shipping ♥

$159.95
Buy It Now
Free shipping

FAST 'N FREE - Est. delivery by Thu, Oct. 23
Top Rated Plus

Beautiful Condition Galaxy Gear 2 SM-R380 Fitness Smart Watch - Silver/Black

$192.50
4 bids

3m left (Today 7:14PM)
Est. delivery by **Mon, Oct. 27**

Samsung Mobile SM-V700 Galaxy Gear Digital Smartwatch Wrist Watch - Jet Black

*****USA SELLER*****FAST SHIPPING*****TOP SELLER*****

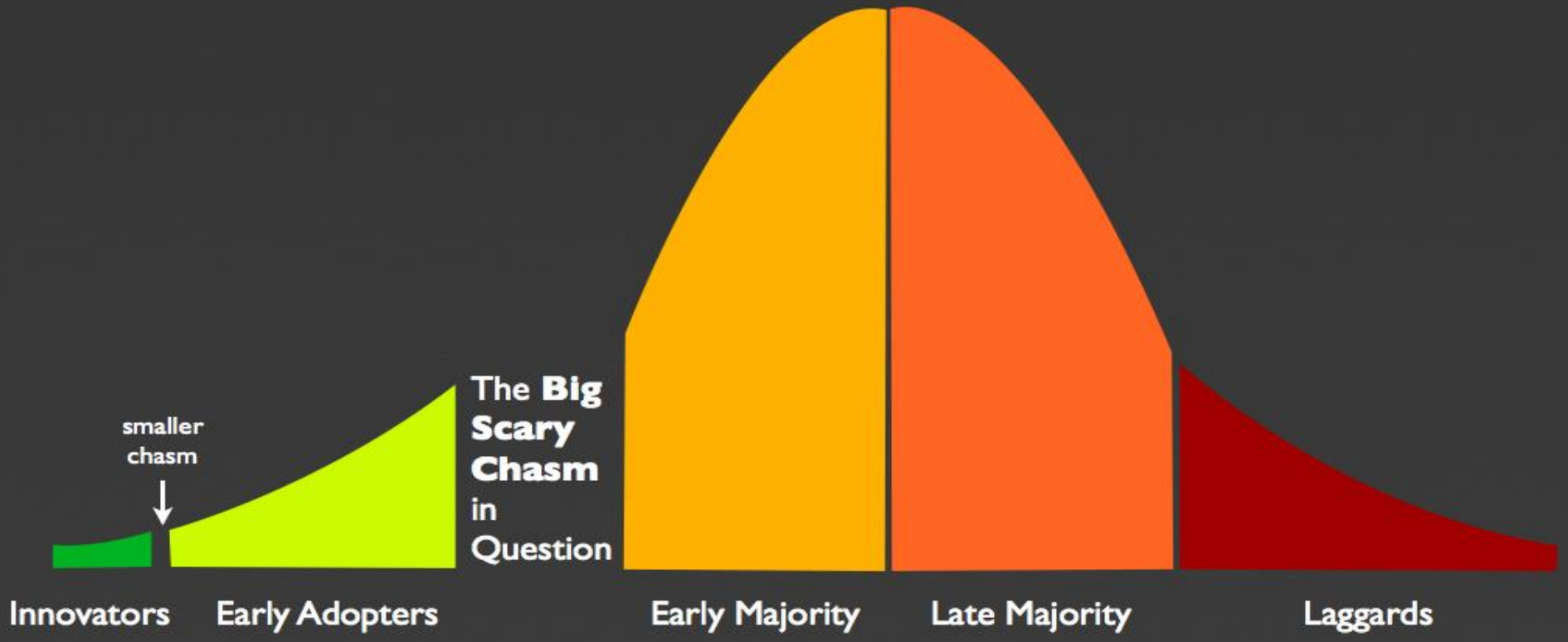
$109.95
Trending at $140.00
Buy It Now
Free shipping
868 sold

FAST 'N FREE - Est. delivery by Thu, Oct. 23

APPLAUSE®

Crossing the Chasm

Geoffrey Moore - 1991



NOT LIKELY

...

TWEETS 3,004 | FOLLOWING 497 | FOLLOWERS 138K | FAVORITES 5,316

Aaron Levie
@levie

Lead Magician (and CEO) at Box (@boxHQ); Huge ABBA fan. I don't fully endorse anything I say below. Go

Palo Alto
box.com
Joined March 2007

Tweet to Aaron Levie

57 Followers you know

Tweets | Tweets & replies | Photos & videos

Aaron Levie @levie · 19h

Things to know when making conservative predictions about a new Apple product:

1. You will be wrong
2. It will be referenced forever

374 504

Aaron Levie @levie · Mar 14

With blogging, we had content creators and consumers. With live video, we'll have "people that have gone outside" and "people that haven't."

117 188

APPLAUSE®

What's up with Millenials' purchases in the next year?

Percentage of Millenials likely to purchase:

PricewaterhouseCoopers' *The Wearable Future*

BUT IT IS GETTING HARDER

APPLAUSE

MANY WON'T MAKE IT

APPLAUSE®

Joel Saget / Pool via Reuters

WHY

...

APPLAUSE®

WEARABLES MUST DO MORE THAN JUST WORK

APPLAUSE®

THEY HAVE TO DELIGHT YOUR USERS

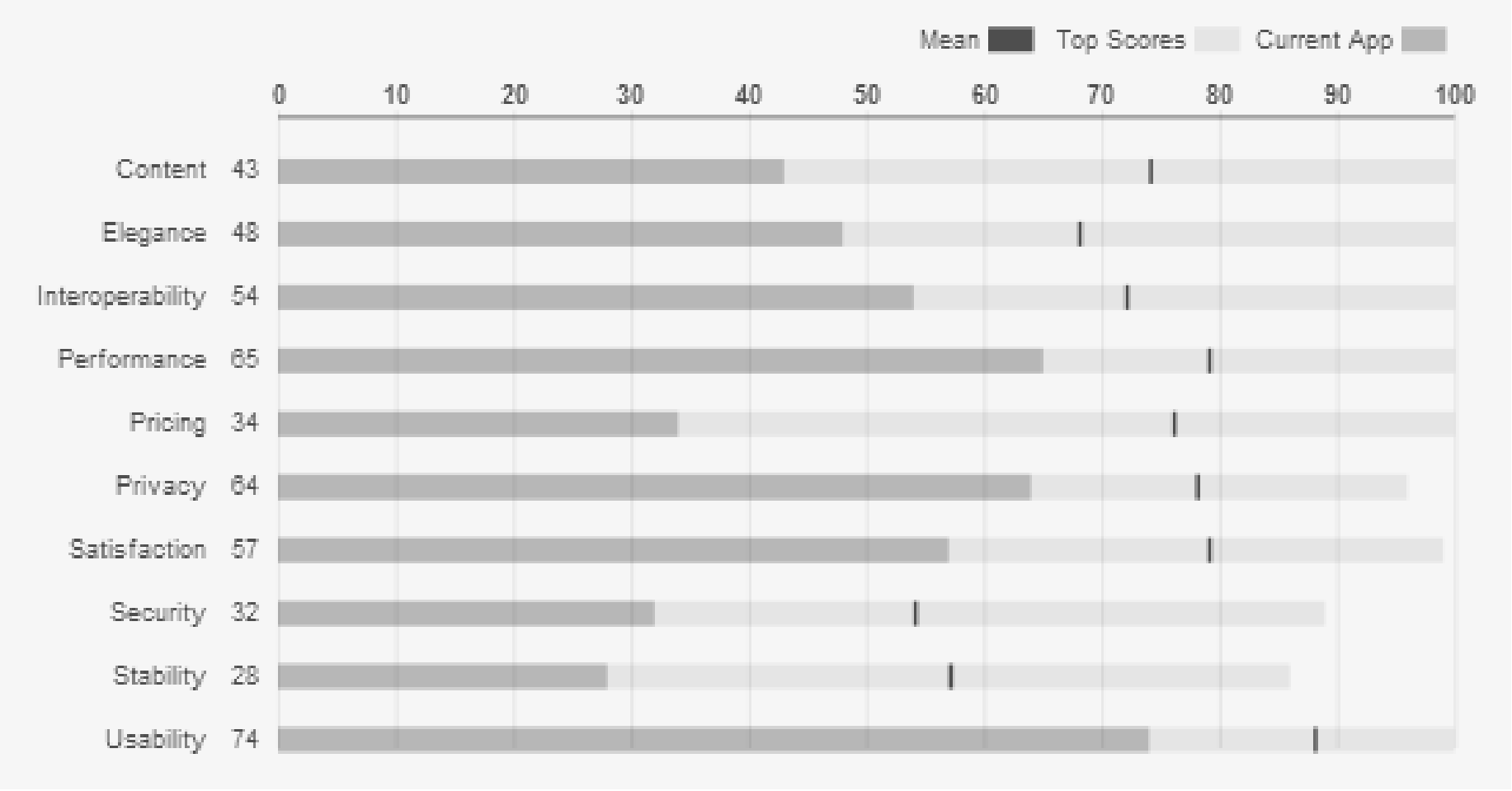
APPLAUSE®

MUST WORK THE FIRST AND EVERY TIME

APPLAUSE®

Fitbit Activity and Calorie Tracker

Health & Fitness | Applause Score: 57/100



WHICH IS HARD, AS OUR WORLD HAS…

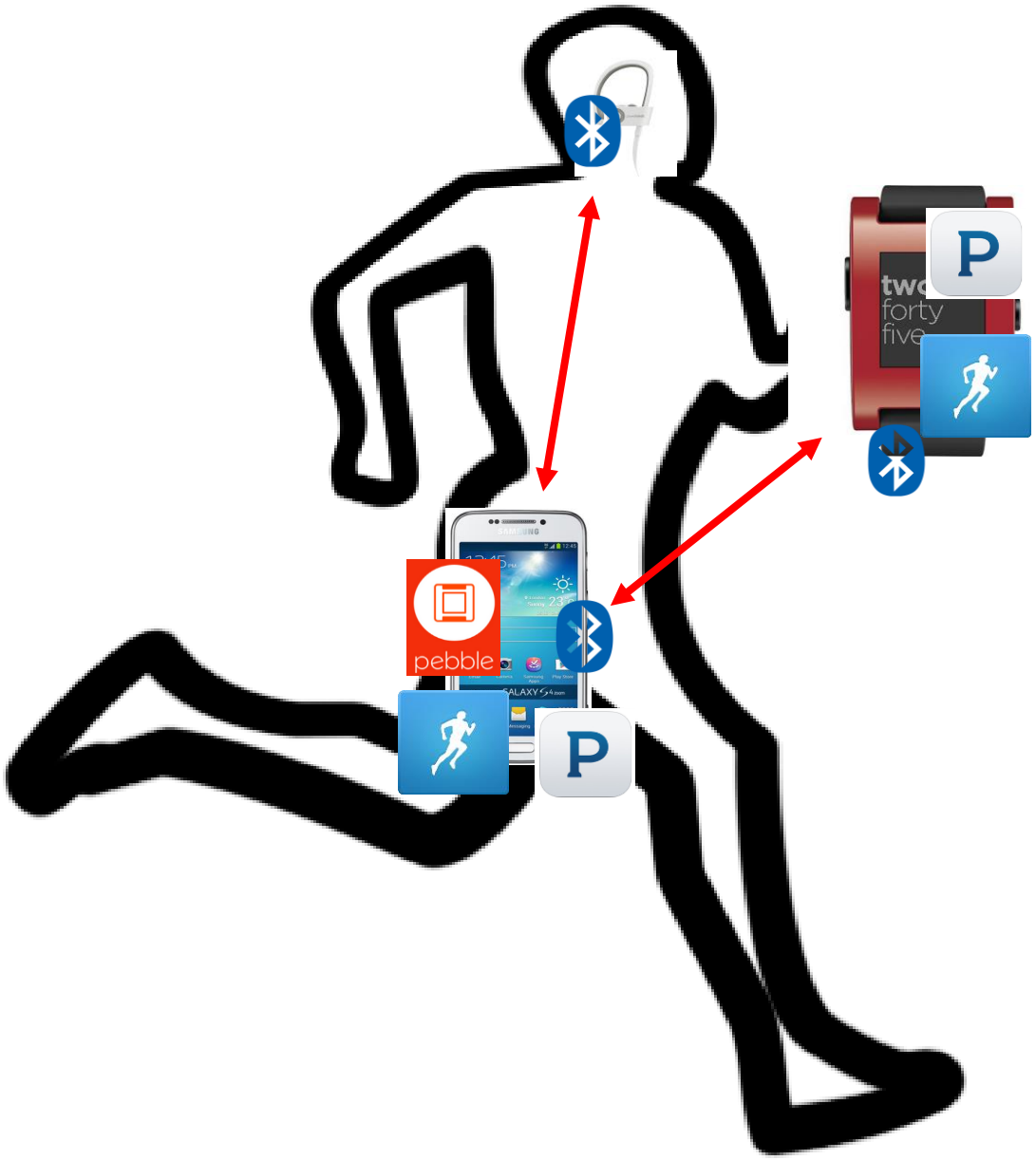
MORE FRAGMENTATION THAN EVER

APPLAUSE®

OpenSignal Android Fragmentation Visualized (August 2014)

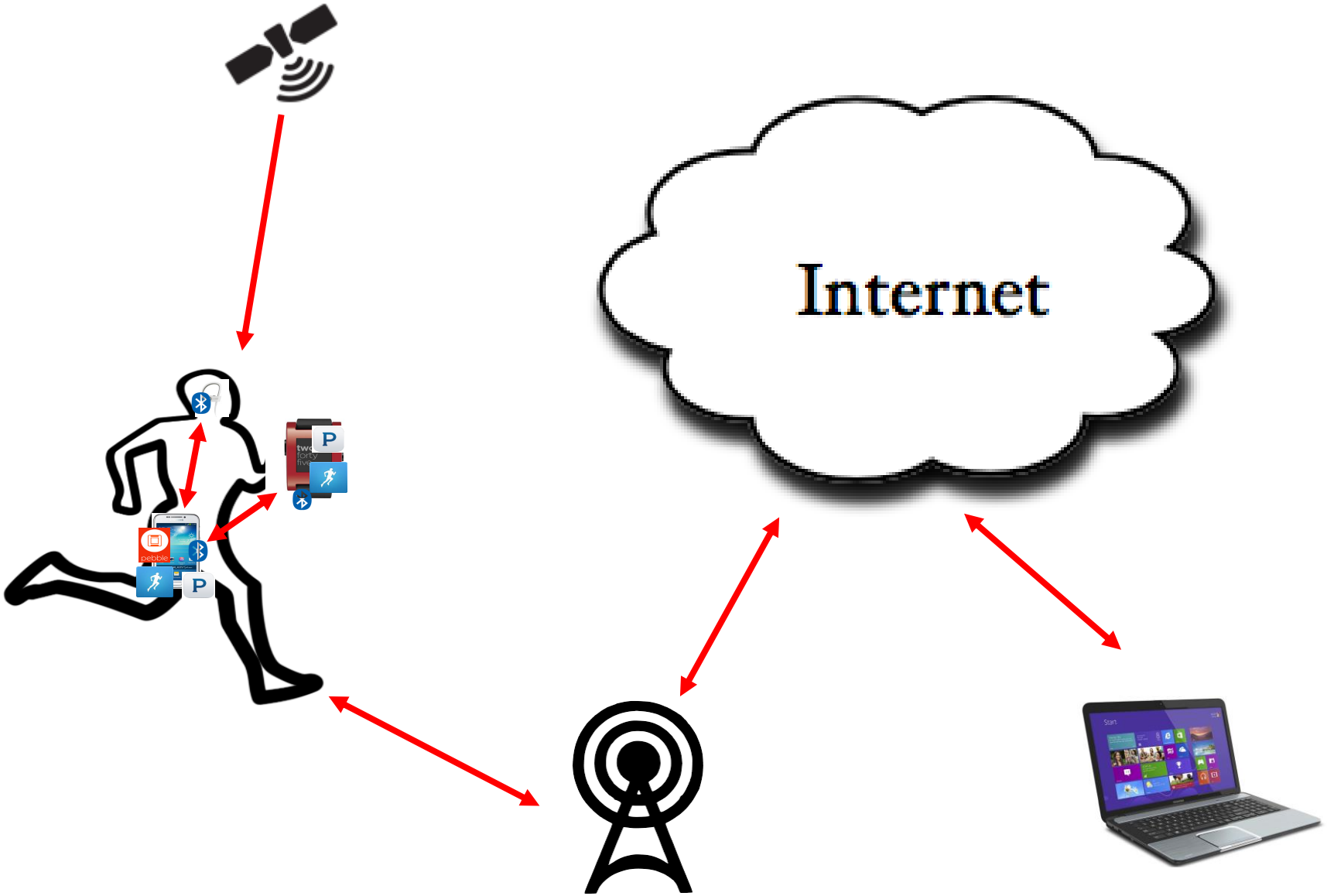
MORE INTEROP THAN EVER

APPLAUSE®



MORE INTEROP THAN EVER

APPLAUSE®



3:21 PM on Thursday, January 15, 2015

Afternoon Run

Add a description

5.0 mi	28:51	5:44 /mi
Distance	Moving Time	Pace

Elevation	0ft	Calories	700
Elapsed Time	28:51		

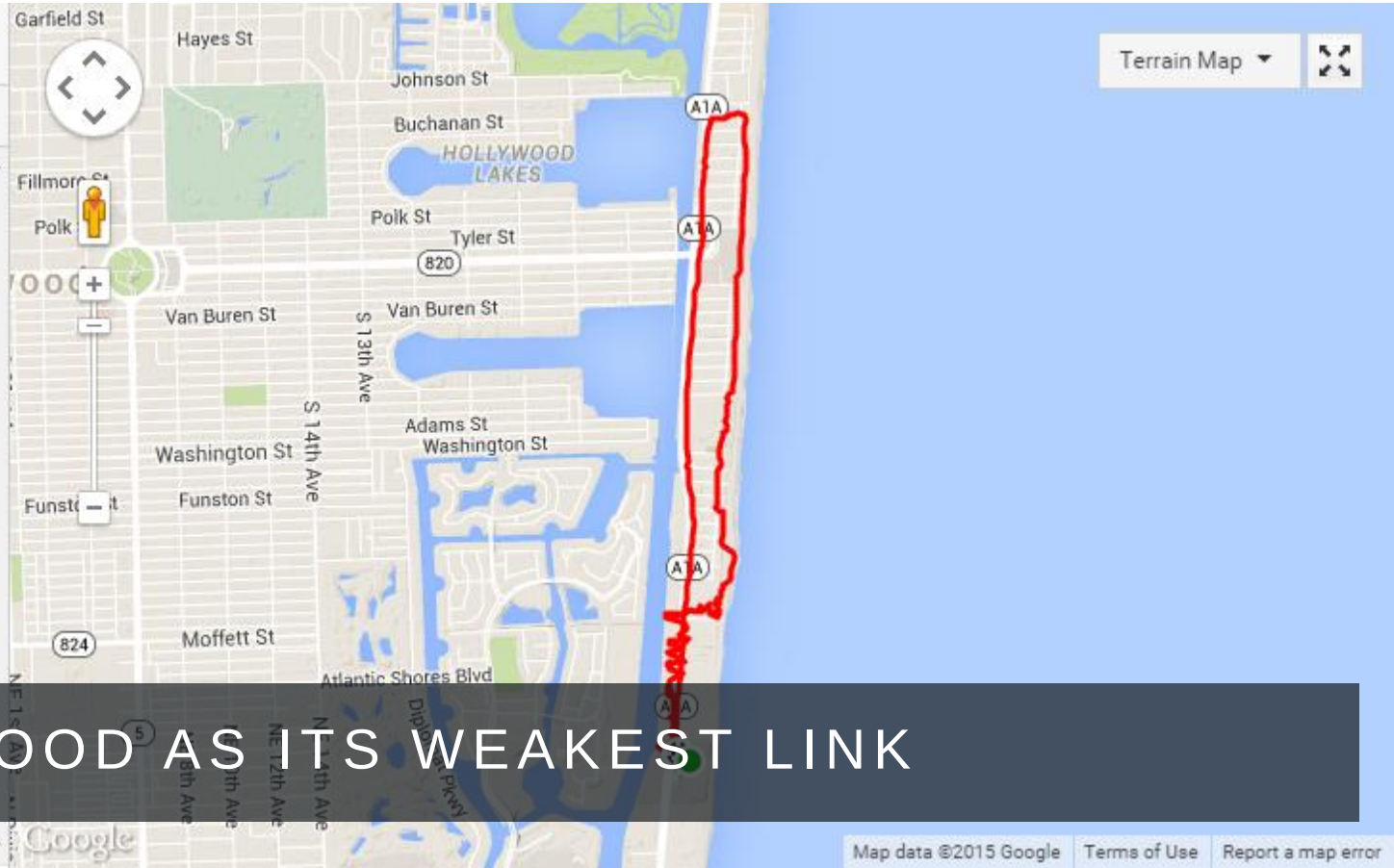
Device: Strava Android App

Shoes: —

Splits

Mile	Pace	GAP	Elev (ft)
1	2:58	2:58	-8
2	3:48	3:47	6
3	7:12	7:12	-0
4	7:29	7:30	-5
5	7:11	7:11	1

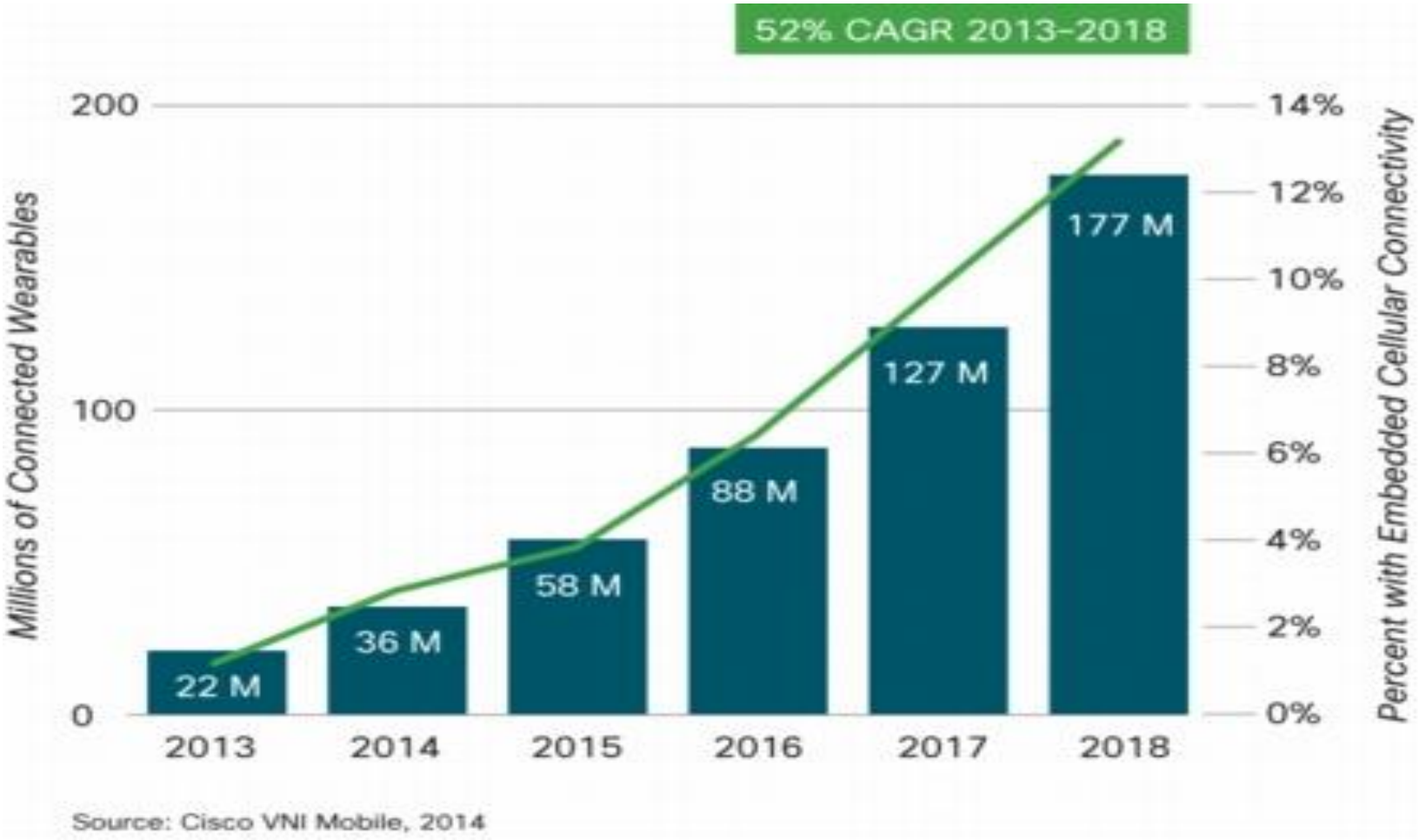
WORLD RECORD!!!!



ONLY AS GOOD AS ITS WEAKEST LINK

CELLULAR COVERAGE IMPORTANT

APPLAUSE®



MORE VARIABLES THAN EVER

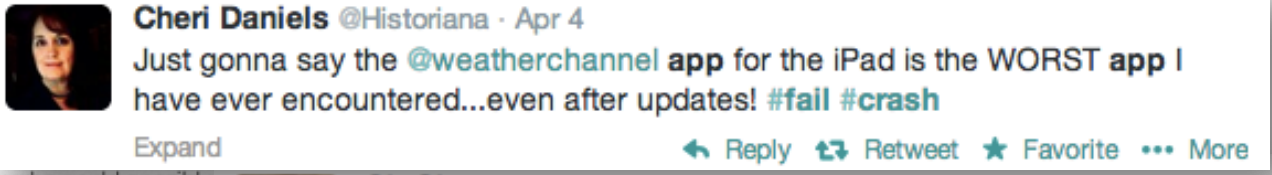
APPLAUSE®

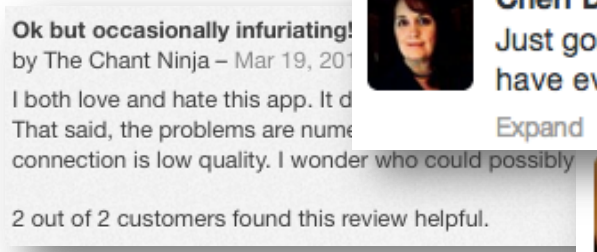
MORE COMPETITION THAN EVER

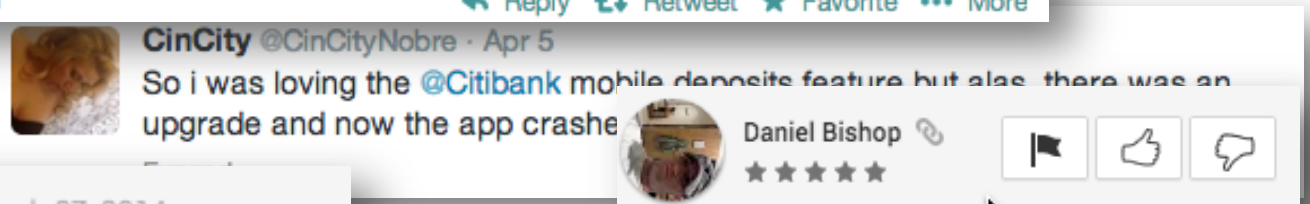
APPLAUSE®

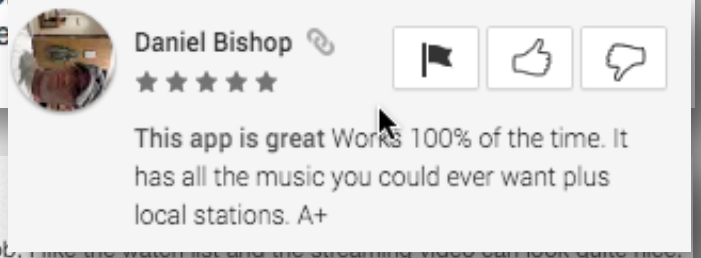
MORE VOCAL USERS THAN EVER

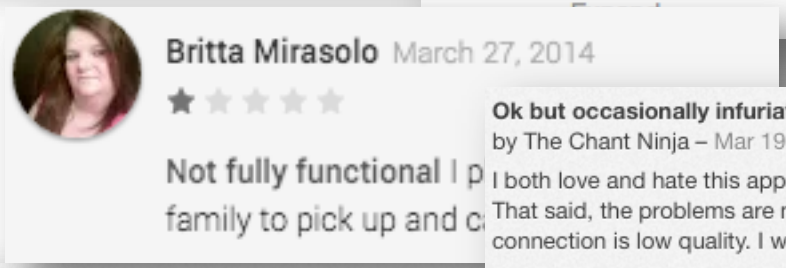
APPLAUSE®

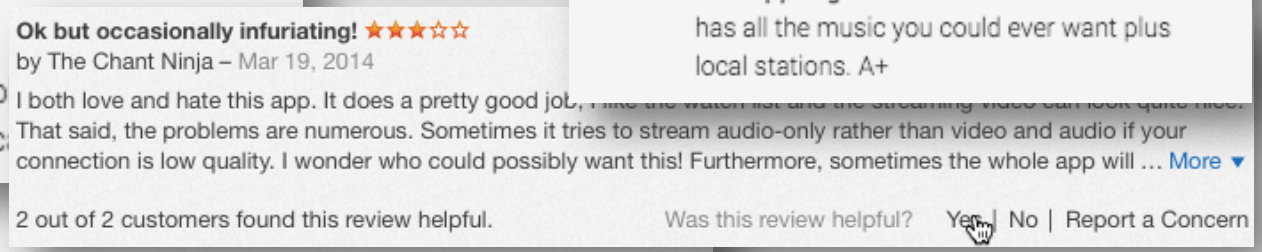


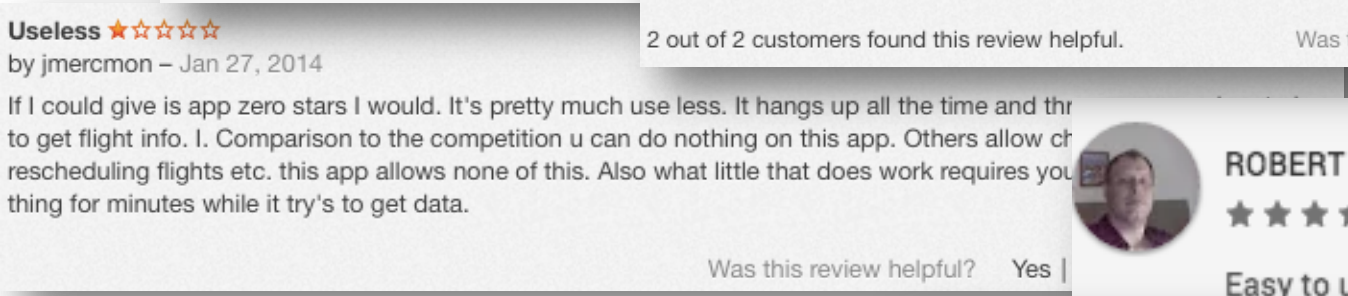


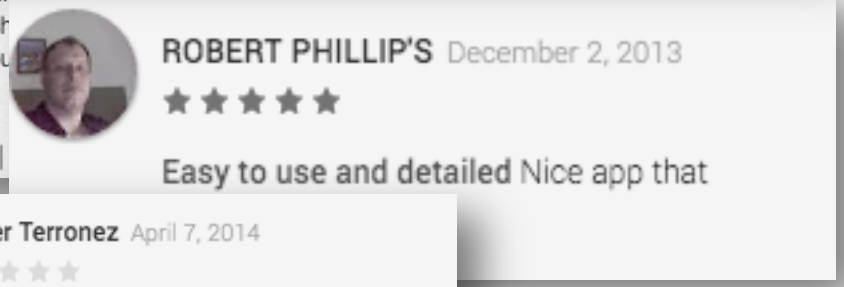


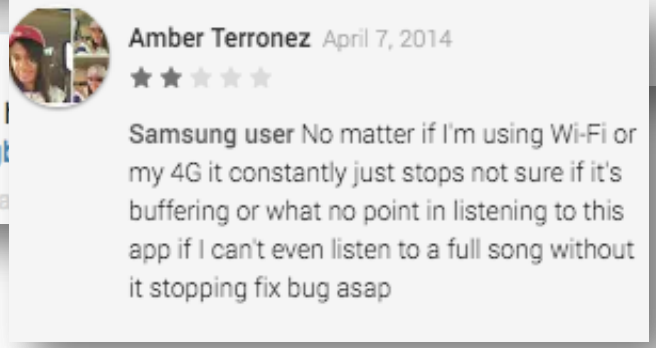












WHAT CAN WE DO

...

“Any sufficiently advanced technology
is indistinguishable from magic.”

~Arthur C. Clarke

WE NEED TO CREATE MAGIC

WHERE ARE WE COMING FROM

APPLAUSE®

WORKED WITH OVER 40 WEARABLE COMPANIES

HUNDREDS OF PROJECTS COMPLETED

IN-THE-WILD TESTING IN 40+ COUNTRIES

THOUSANDS OF BUGS FIXED

MEET THE CHALLENGES

APPLAUSE®

- **Your app shouldn’t be everything to everyone at every time**
  - Know your user
  - Know the environment of your user
- **It’s about transposing not transporting**
  - What are the elements that keep your app unique
  - What’s relevant
- **Test where your users are**
  - A lab won’t tell you what walking around is like
  - Listening early and often

APPLAUSE®

- **Where do you draw the line?**
  - Who do you integrate with?
  - What happens when you say no?
- **Integrations means more testing**
  - It's a moving target
  - Users don't care who broke their experience, you're to blame
- **Users don't listen**
  - Think beyond your minimum requirements
  - Think outside of your standard environments

CHALLENGE #3: BATTERY LIFE

APPLAUSE®

- **Who wants to charge their clothes?**
  - Do you respect users' battery life?
  - Do you play well with others?
- **Balance notifications with relevance**
  - Not just about the connection
  - Turning on the screen
- **Testing how well you play with others**
  - Your impact on battery life may be minimal, but what happens when you are going for the same resource
  - What is real life battery usage

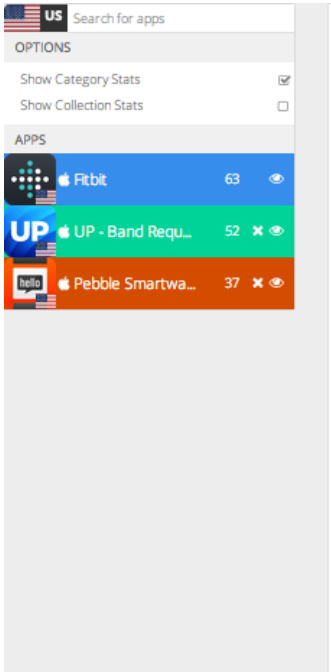
CHALLENGE #4: DISCONNECTING

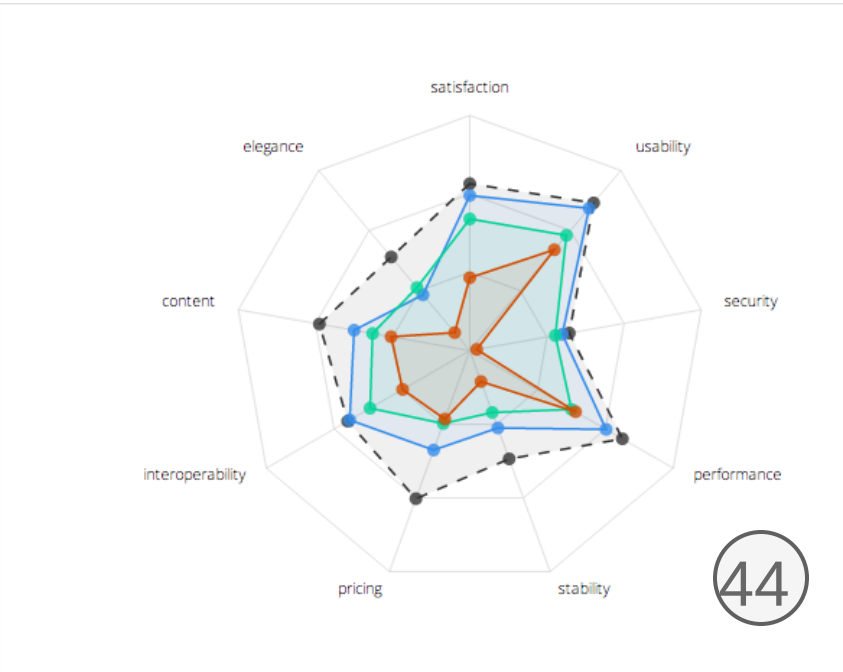
APPLAUSE®

- **What happens in the absence of a connection?**
  - Unintentional disconnects
  - Users that just want to tune out
- **Are you friendly failing**
  - Test for errors
  - Test for experience?

APPLAUSE®

- **You have to be in tune to what your users are saying**
  - Monitoring app stores
  - Listening to customer support channels
- **It's okay to be reactive but better to be proactive**
  - Beta testing
  - In-the-wild testing
  - Usability testing
  - Crash monitoring
  - App store feedback





BEAT THE CHALLENGES

TAKE A 360 DEGREE APPROACH

APPLAUSE®

- **Testing beyond the traditional QA lab**
- **Test where and how your users work, live & play**
- **Discover crashes & user feedback in real-time**
- **Listen to what your target users are saying in:**
  - **the app stores**
  - **social media**
  - **ecommerce sites**
- **Automate where practical to gain coverage and speed**

YOU NEED A PORTFOLIO APPROACH

APPLAUSE®

Your Test Labs Are Here

Your Users Are Here

Wearables need real-world testing, where users live, work & play

APPLAUSE®

- **Get lazy and get greedy**
  - Use devices at varying battery charges
  - Use all your greedy apps and services at once
  - Use in varying weather conditions
  - Let your battery die

- **Test your wearables under real world conditions**
  - Take them to common and extreme locations
  - Give them to real people (incented and not incented)
  - Use them as intended (on the move, in subways, without signal)
  - Live with them (Longitudinal study)
  - Embed analytics and easy feedback mechanisms into your devices and apps

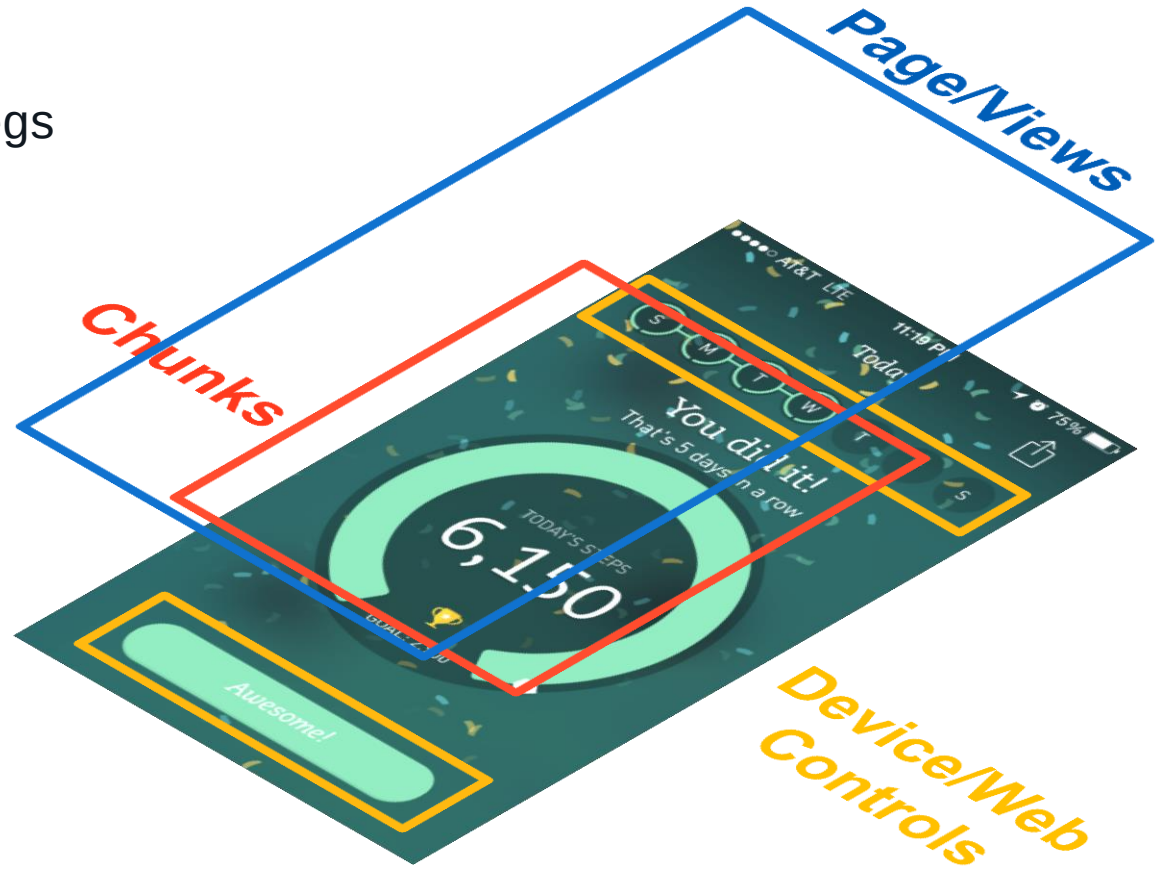
APPLAUSE®

- **Get lost**
  - Go into the deep dark woods or similar urban feature
  - Go fast between mobile towers
  - Switch between wi-fi, varying network strengths and zero signal

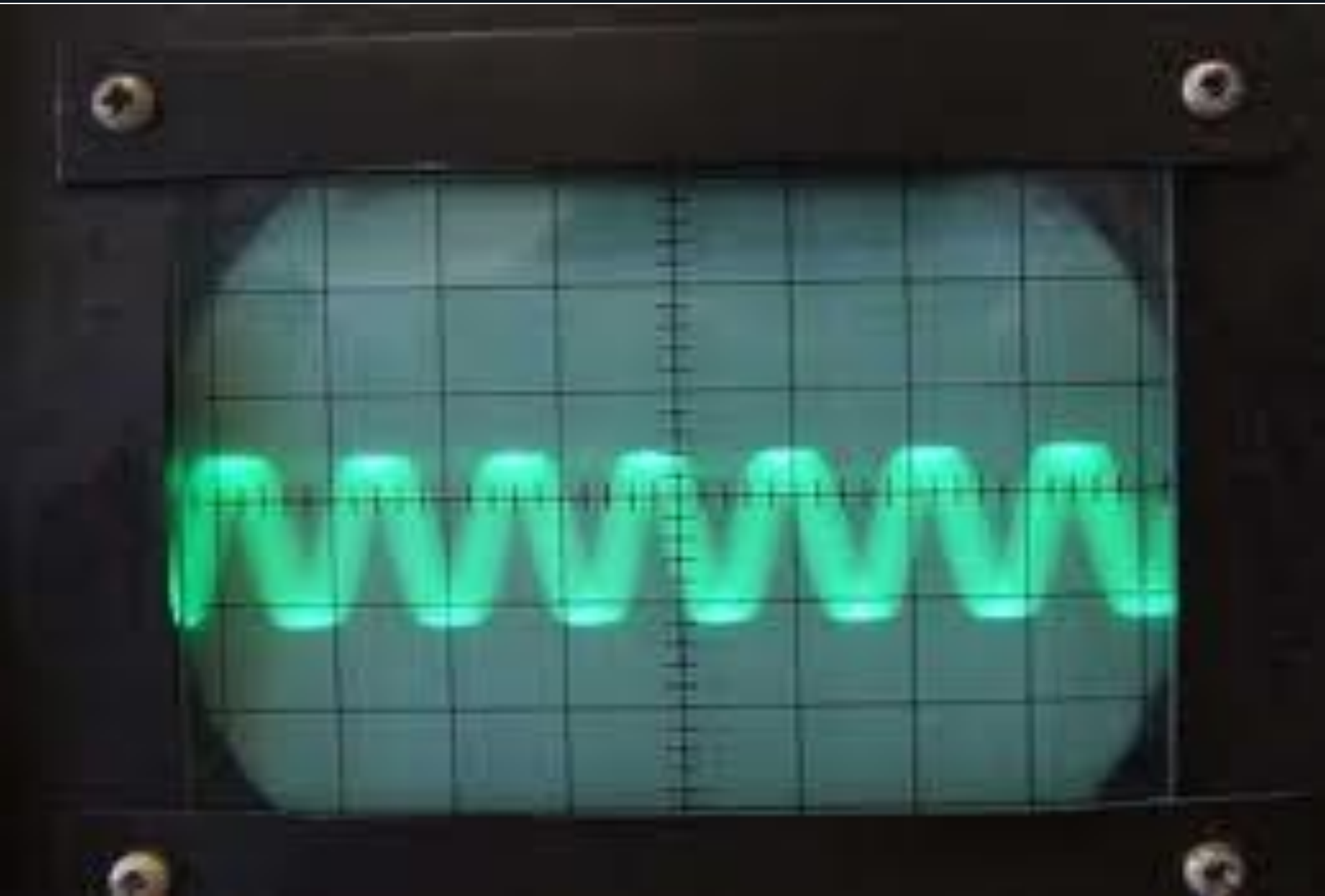
- **Get dirty**
  - Don’t just use factory settings
  - Put a bunch of apps on there
  - Use multiple apps and services at once
  - Hit different networks
  - Bounce between data sources
  - Take a phone call or seven
  - Use competitor apps/devices in parallel

APPLAUSE®

- **Keep it simple**
  - Small tests
  - Focus on arms and legs
  - Maintenance is key
  - Tie to CI
- **Separate the layers**
  - Hardware test
  - Unit test
  - API test
  - UI test
  - Full stack test
- **Use real devices**
  - Simulators/Emulators for dev
  - Real devices for build validation and new platform validation

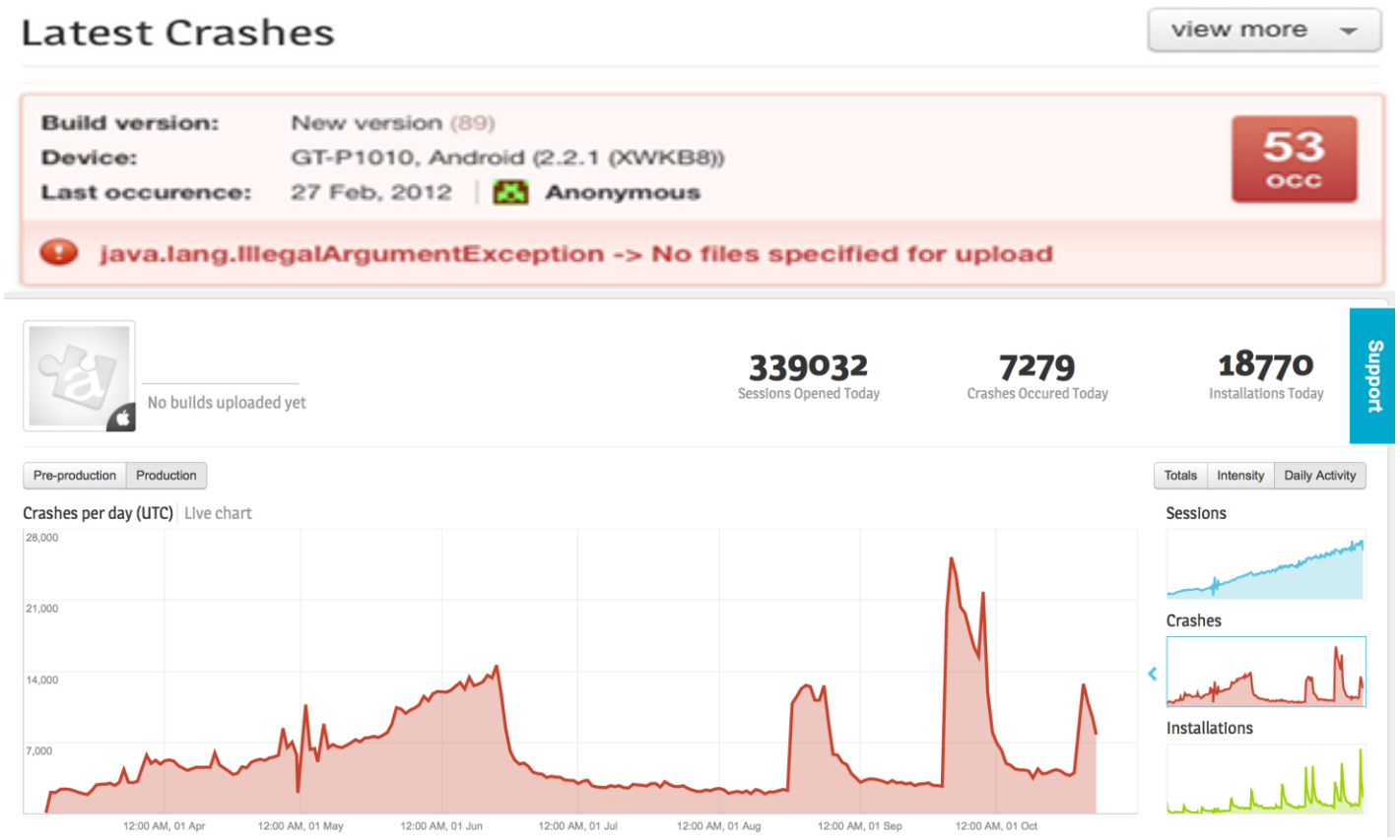


APPLAUSE®



INSTRUMENT FOR IMPLICIT DATA

APPLAUSE®



IMPLEMENT DIRECT FEEDBACK

APPLAUSE®

ver. 1.013 (13) 04 Sep, 2013

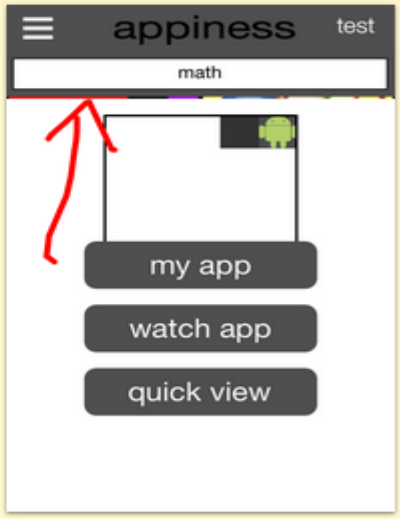
iPhone 4 GSM, iPhone OS 7.0

Fumim

Right swipe doesn't work from detail article view. When shifted after tapping on "menu" icon, left swipe

ver. 1.013 (13) 04 Sep, 2013

iPhone 4 GSM, iPhone OS 7.0



Fumim

Line of pixels left over from previous screen

BUG 02:01:15.183 Right swipe doesn't work from detail article view. When shifted after tapping on "menu" icon, left swipe doesn't work (but tapping on menu icon again works)

Session Details

Your applications › appiness › Sessions › 89368082

12 minutes @ 04 Sep, 2013 | Fumim | Ver. 1.013 (13)

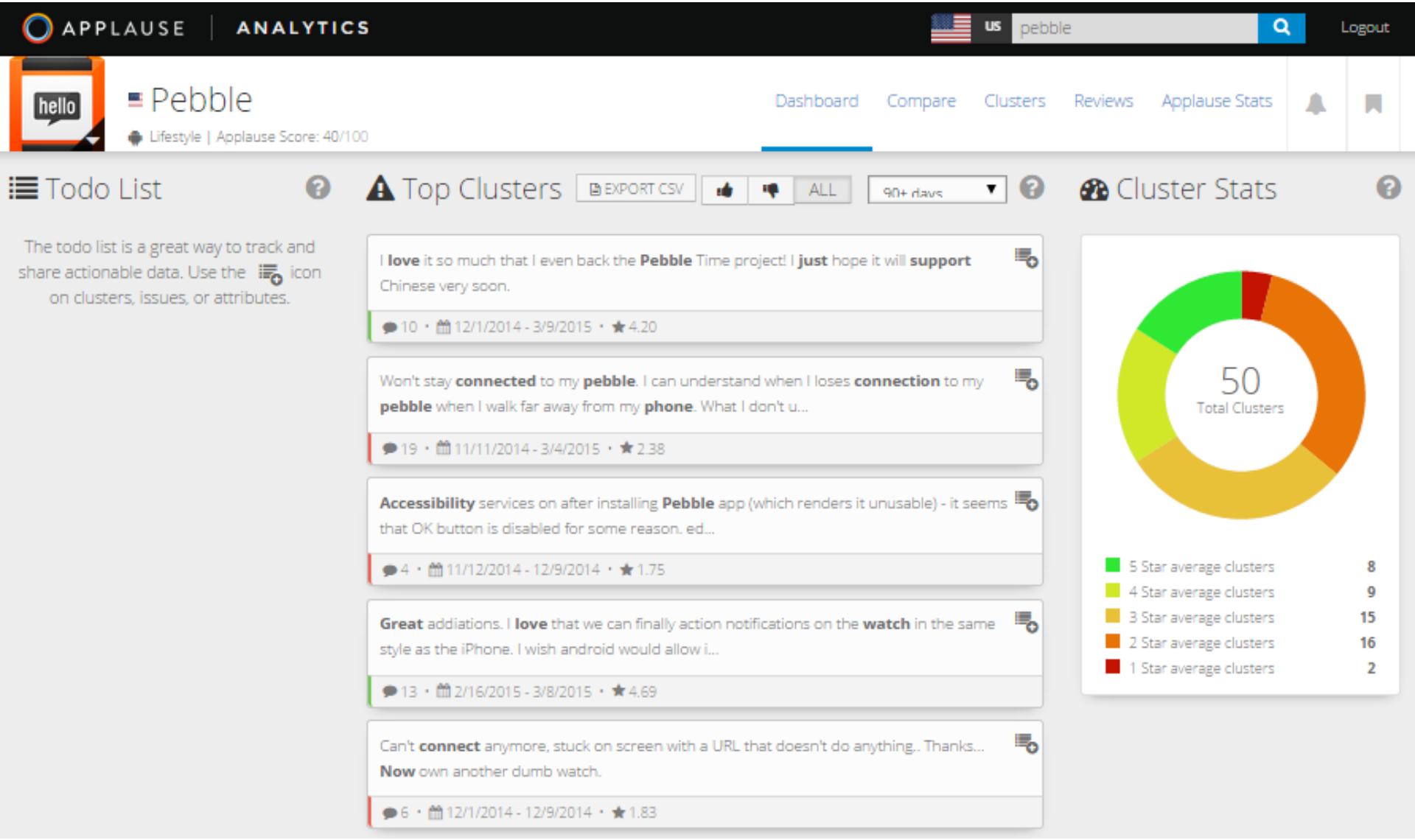
Starting conditions

iPhone 4 GSM | Unknown | 80.00% | 640x960 | AT&T | Unknown

Type	Time	Code
CONDITION	01:52:03.316	screen: orientation: Portrait
CONDITION	01:52:04.731	networking: networking: active-interface: wifi interfaces: wifi: medium: ssid: local2 bssid: 90:72:40:10:b3:a netmask-ipv6: 0.0.0.0 data_received: 515652.375

CLUSTER REVIEWS

APPLAUSE



USE COMPETITIVE DATA

APPLAUSE®

Fitbit

Health & Fitness | Applause Score: 48/100

Dashboard | Compare | Clusters | Reviews | Applause Stats

US Search for apps (limit 5)

OPTIONS

Show Category Stats

Show Collection Stats

APPS

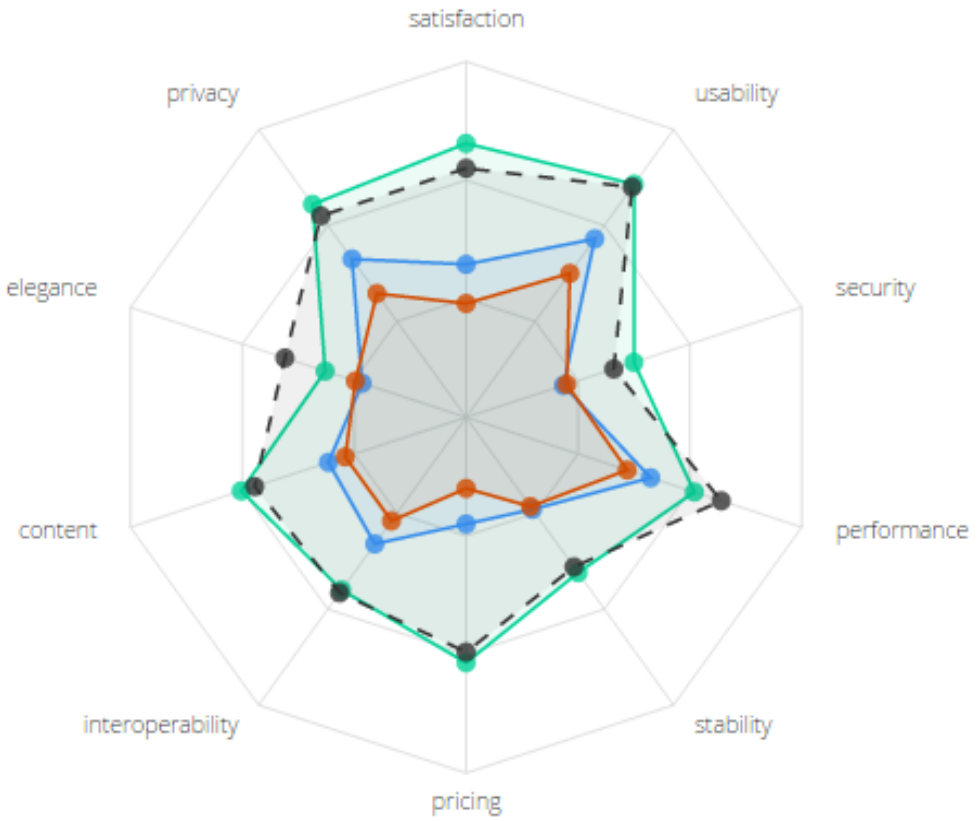
Fitbit 48

RunKeeper - GP... 70

UP - Requires ... 40

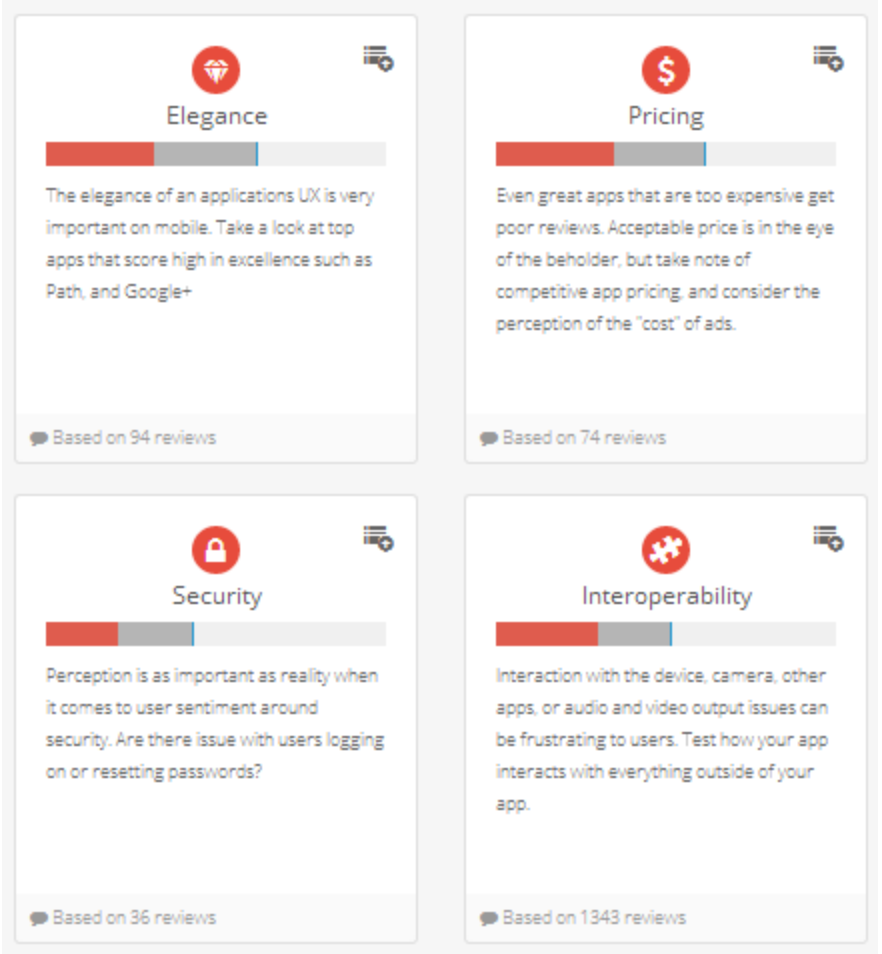
RECOMMENDED APPS

Category



APPLAUSE®

- **End opinion-based debates**
- **Continual improvement**
- **Measure what matters**
- **Compare to competitors**
- **Measure before & after launch**



RECAP

...

- **Wearables are growing, but the chasm will catch all but the most appealing**
- **Appealing is measured against 10 attributes of quality**
- **5 Challenges Sucking Products Into The Chasm**
  - Usability
  - Compatibility
  - Battery life
  - Disconnecting
  - Users talk

- **But you're in control**
  - Test In-The-Wild
    - Get real
    - Get dirty
    - Get greedy
    - Get lost
  - Implement appropriate amounts of test automation
    - Test early and often
  - Monitor feedback
    - Implicit and explicit feedback
    - Direct user feedback in context
    - Find the signal and listen to it

APPLAUSE®

YOUR BRAND IS EVERYTHING

To get started with Applause today:

- Visit **http://www.applause.com/wearables**
  - Download our new wearables testing whitepaper
- Email us at **sales@applause.com**
- Connect with an app quality advisor: **844.300.2777**

CONTACT US

APPLAUSE

- **Creating Loyal Customers Through Winning Digital Experiences featuring Applause and guest Forrester Research**
  - Wed 4/22 @ 1pm EST

Register:

www.applause.com/webinars

Thank you!

Damian Roskill

VP of Marketing

Applause

droskill@applause.com

www.applause.com