

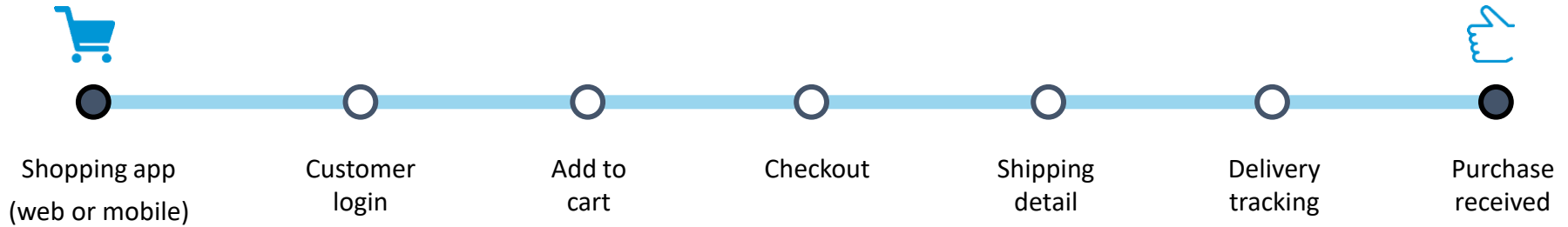
Paris, 16-18 October 2018

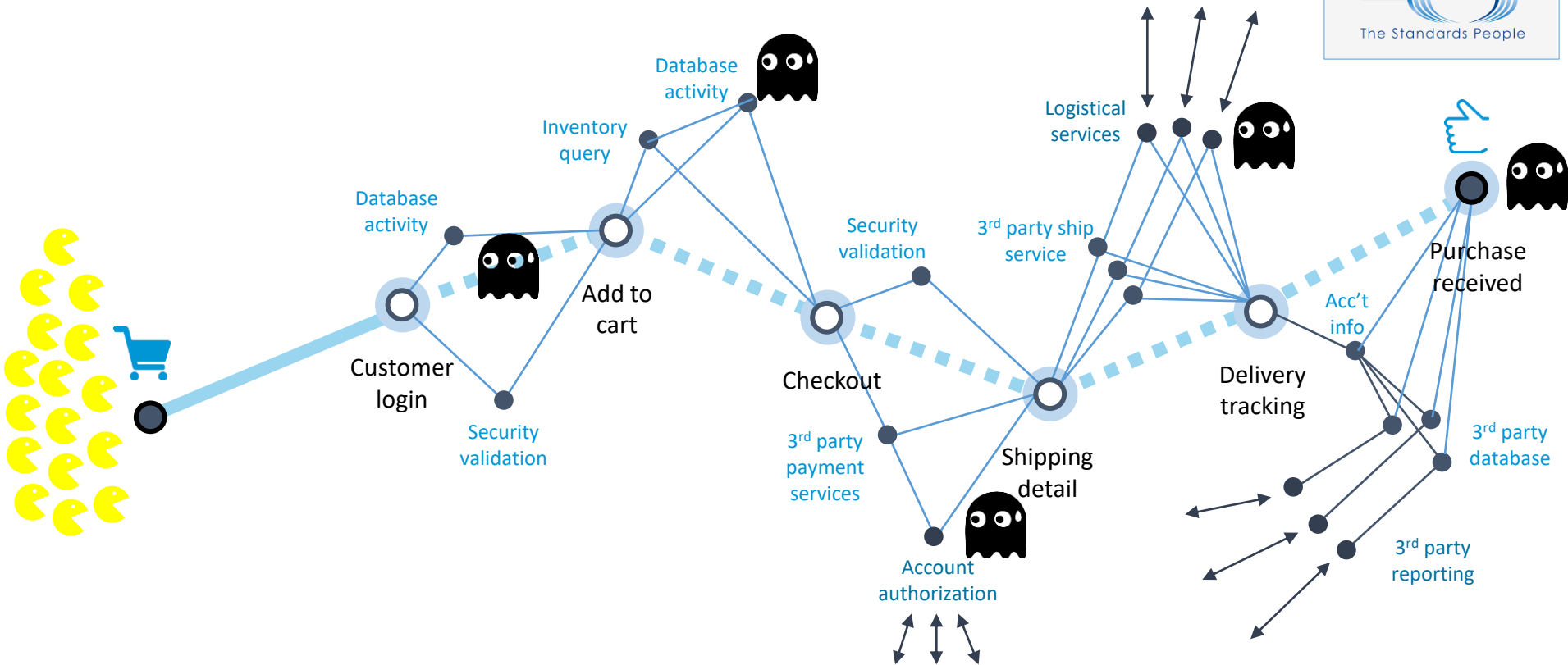


Organizer:  TESTING
SOLUTIONS
& SERVICES

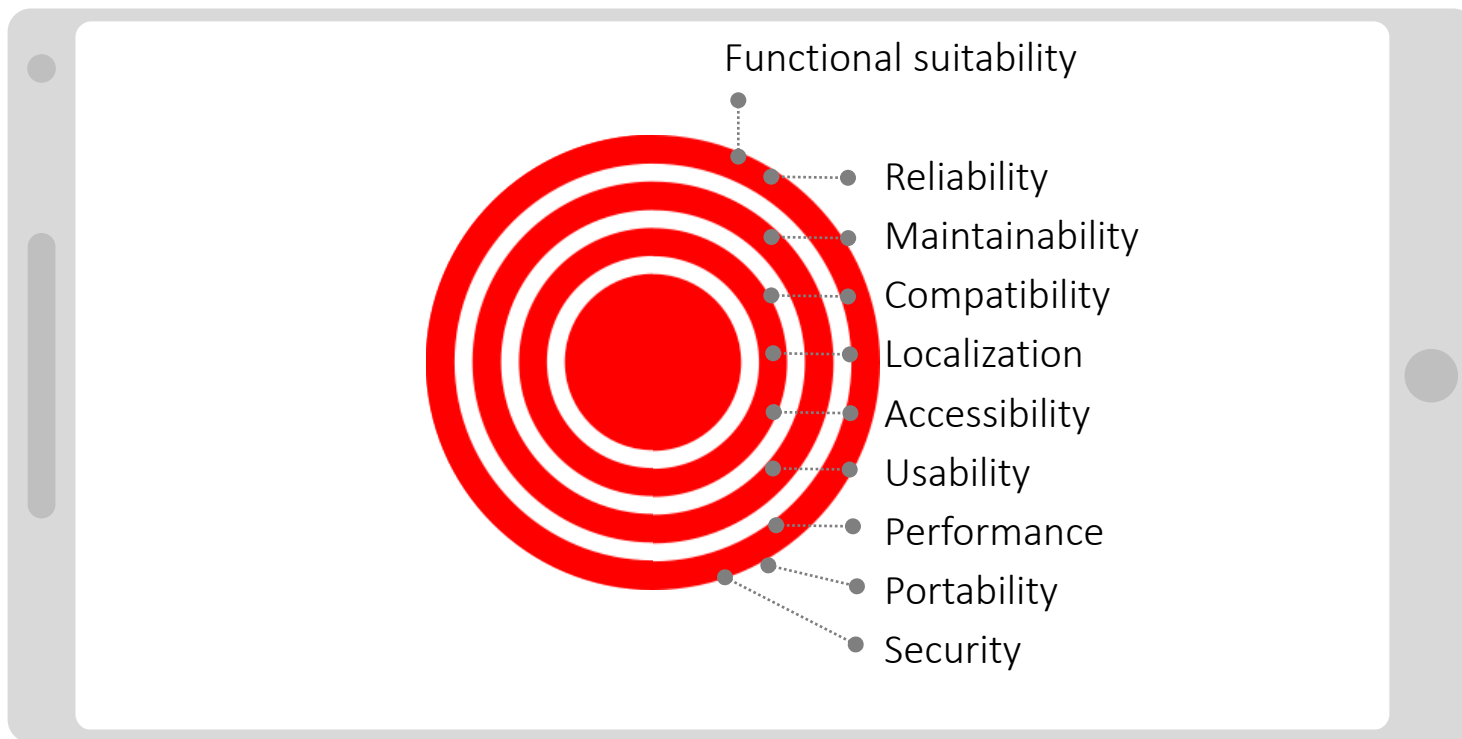
Analytics: the spice to automation testing

Presented by Antoine Aymer

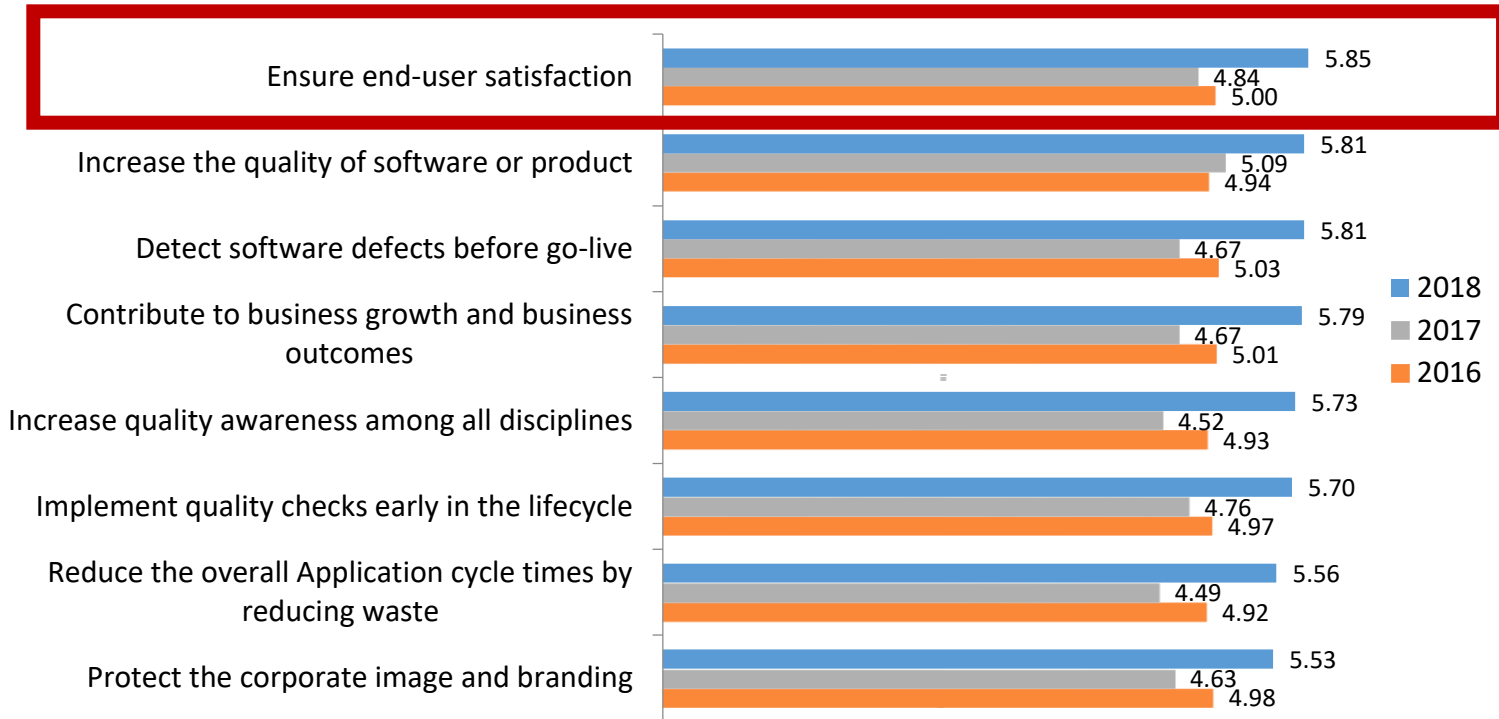




Redefining our target

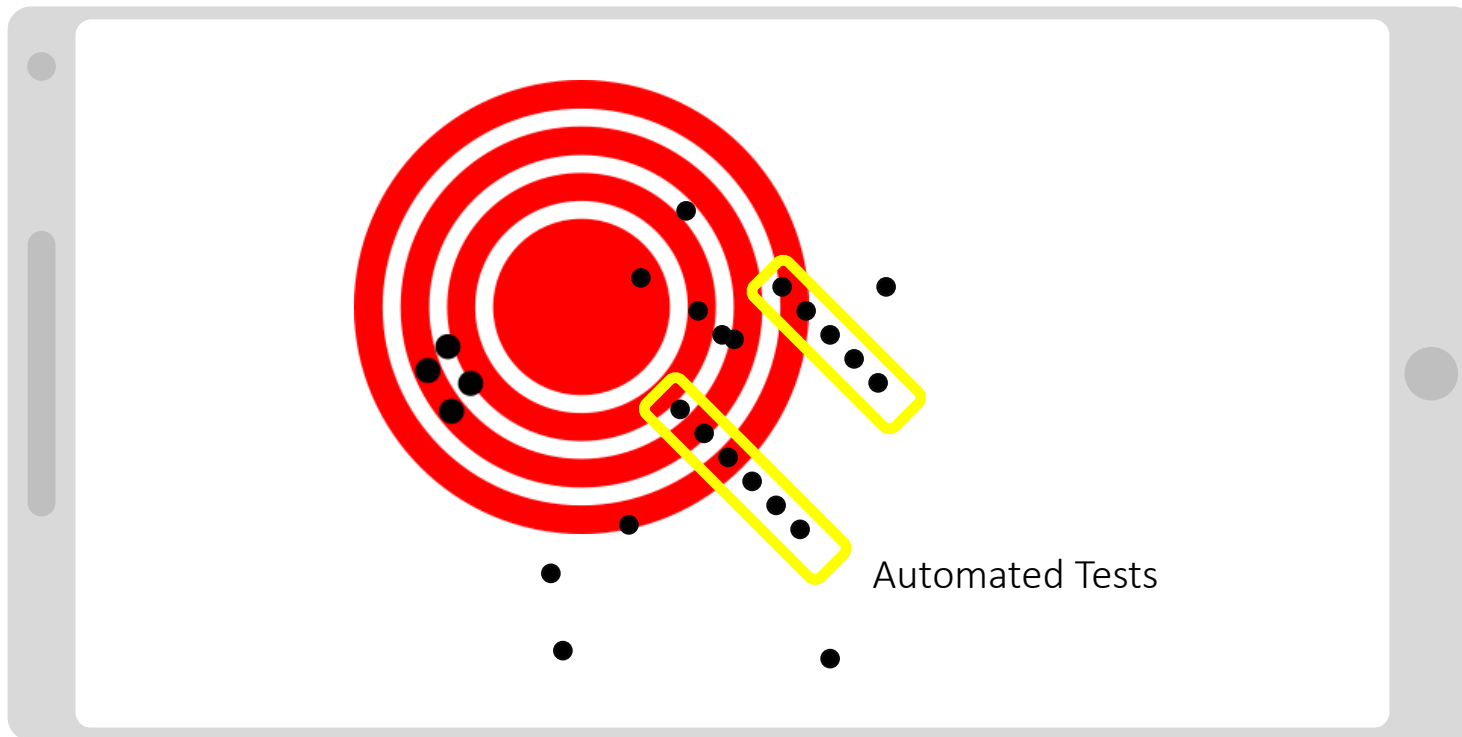


The emergence of user experience



<https://www.sogeti.com/explore/reports/world-quality-report-2017-2018/>

How much of our testing is on target?



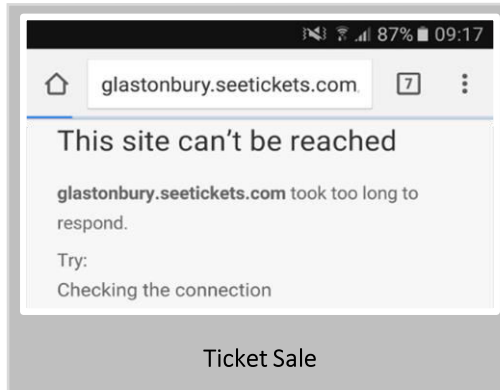
Every business is impacted



Government

Virginia's online voter registration system crashed
October 17th 2016

"We understand the frustration experienced by voters and we apologize the system was unable to handle the overwhelming demand from voters."



Ticket Sale

Glastonbury Festival website crashed
October 9th 2016



Airline

Delta's catastrophic systems outage
August 8th 2016

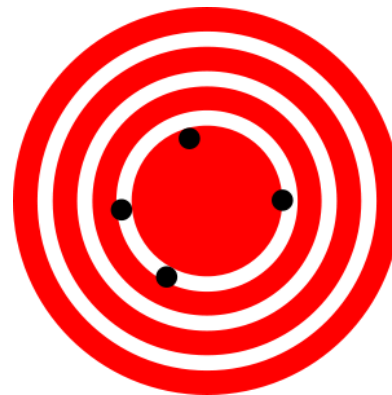
"I apologize for the challenges this has created for you with your travel experience."

Delta CEO Ed Bastian

How to adjust our testing



Precision: repeatability



Accuracy: on target

https://en.wikipedia.org/wiki/Accuracy_and_precision

Know your users



Custom drink feature removed^[1]
=> **1 star feedback** ratings



Parallel Kingdom^[2]
Regular users generate **2.5x daily revenues**

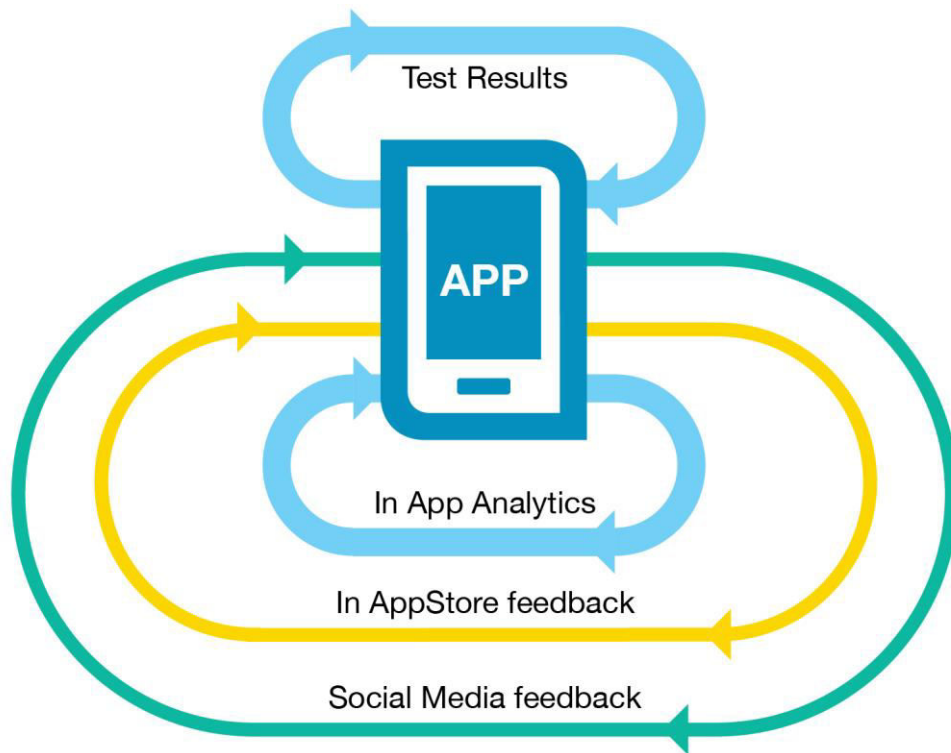
Logos © respective owners

[1] example from App Quality book
[2] example from Tale of Two Apps

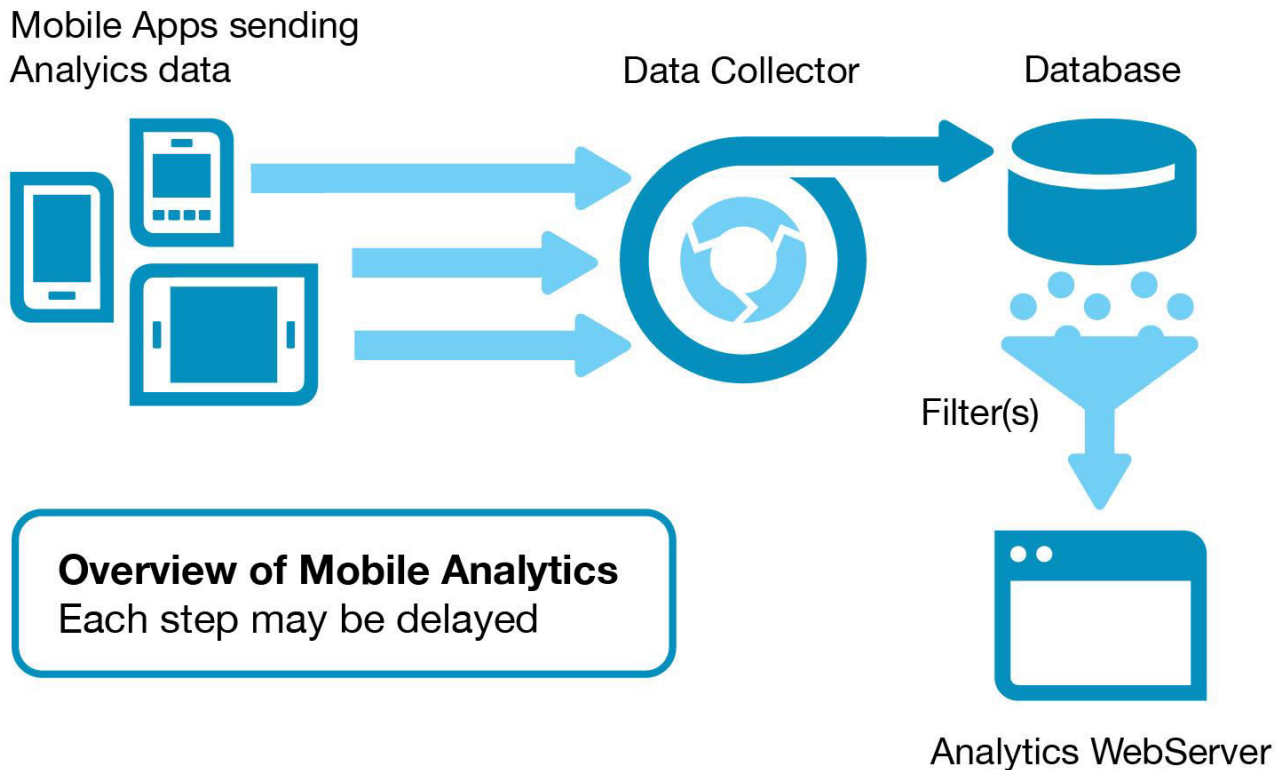
Ways to collect data

What	Technique	Tool(s)
Device details	Research, App Store, Mobile Analytics	API calls, published
GUI elements and layout	Static Analysis, Dynamic Analysis	Code Quality utilities Test Automation Tools
Run-time environment	Queries, Mobile Analytics	Shell commands
Run-time behaviours	Instrumentation, Logging, Mobile Analytics	Development Tools, Test Automation Tools
Network traffic	Observation, Logging	Network Analyzer
Test results	Explicit collection	Data collection utilities, Test Automation Tools
App Store Data	Developer account access	Provided by App Store
Ratings & Reviews	Online access, data collection	App Store, other sources
In-app analytics	Integration of Mobile Analytics Library	Development tools

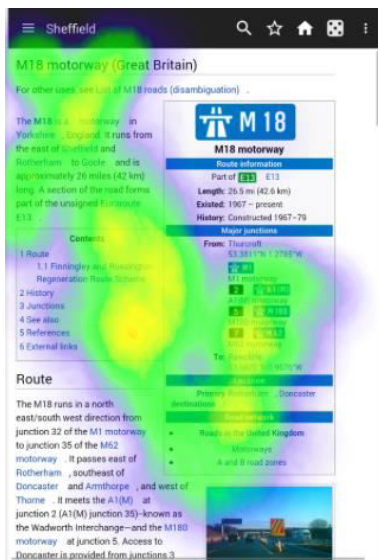
Feedback cycle



Topology for in-app analytics



8 Heatmap Tests that reveal visitor behavior



Zoom/Dezoom

1. [The Link Test](#) – Are visitors clicking on dead ends?
2. [The Distraction Test](#) – Are irrelevant elements distracting visitors?
3. [The Information Test](#) – Is there missing information from your page?
4. [The Device Test](#) – Does your page work on different screen sizes?
5. [The Depth Test](#) – Is all your content easily reachable?
6. [The Engagement Test](#) – What are your site visitors really looking for?
7. [The Fold Test](#) – Does your page have what it takes to keep your visitors?
8. [The Header Test](#) – Is your page header helping or hurting your site?

Source: <https://www.hotjar.com/heatmaps>

Why do reviews matter?

Influence

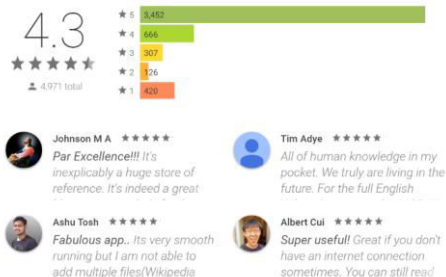
Jumping from...	To...	Is Expected to Increase App Store Conversion by...
★	★★	30%
★	★★★★	340%
★	★★★★★	730%
★	★★★★★	770%
★★	★★★★	280%
★★	★★★★★	540%
★★	★★★★★	570%
★★★	★★★★★	89%
★★★	★★★★★	97%
★★★★	★★★★★	4%

Source: Apptentive 2015 Consumer Survey
The Mobile Marketer's Guide to Ratings & Reviews



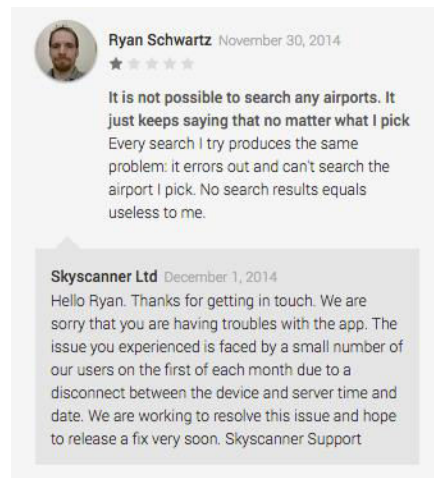
Reviews affect the app ranking and the app store conversion. They are also critical for Search Engine Optimization.

Measure



Reviews have multiple dimensions which can be used to help measure the user experience.

Engage and Improve



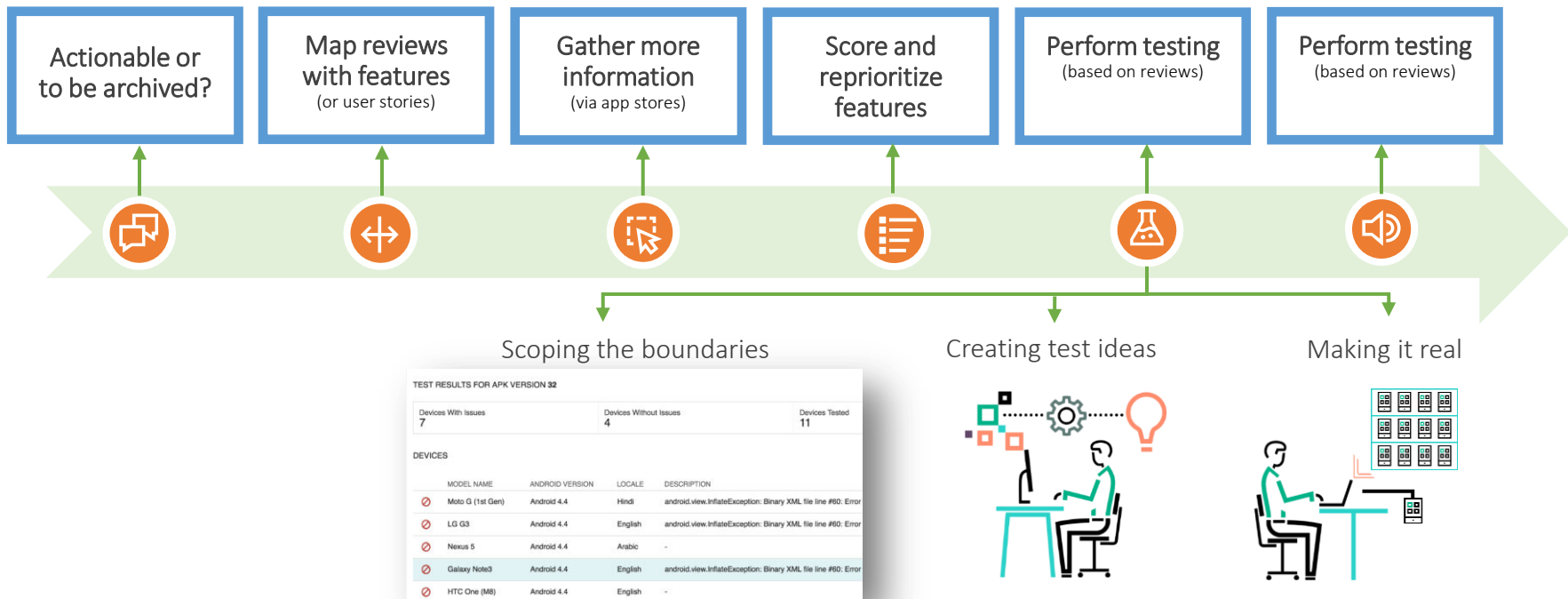
Ryan Schwartz November 30, 2014
★★★★★

It is not possible to search any airports. It just keeps saying that no matter what I pick Every search I try produces the same problem: it errors out and can't search the airport I pick. No search results equals useless to me.

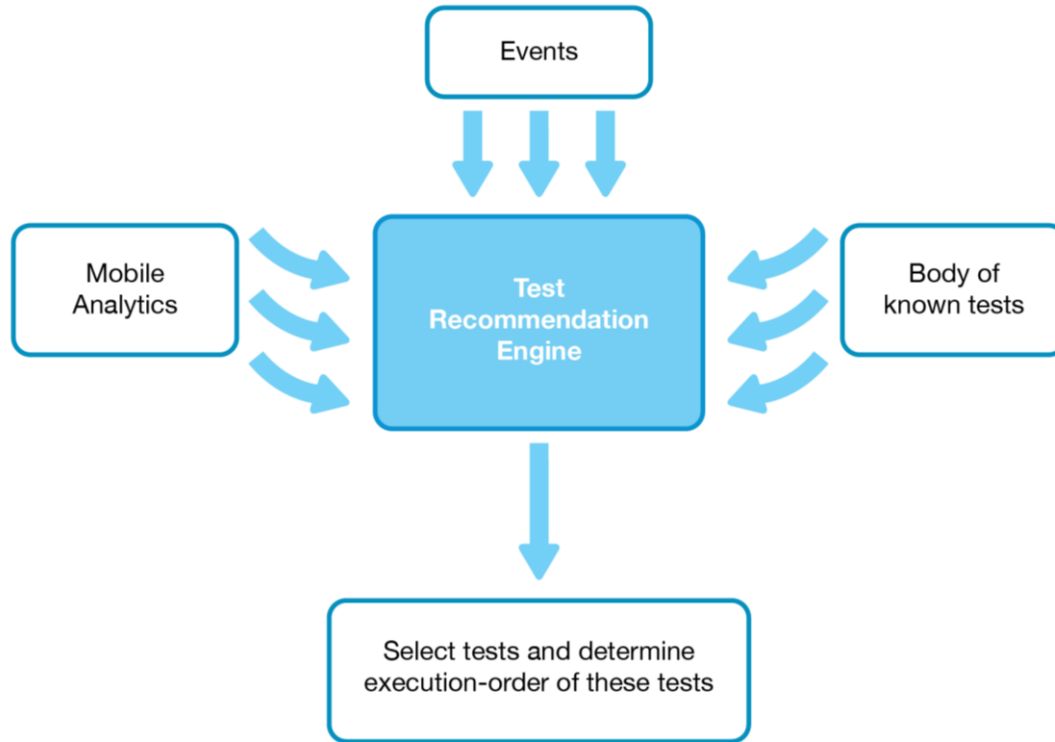
Skyscanner Ltd December 1, 2014
Hello Ryan. Thanks for getting in touch. We are sorry that you are having troubles with the app. The issue you experienced is faced by a small number of our users on the first of each month due to a disconnect between the device and server time and date. We are working to resolve this issue and hope to release a fix very soon. Skyscanner Support

Turn users' input into innovation

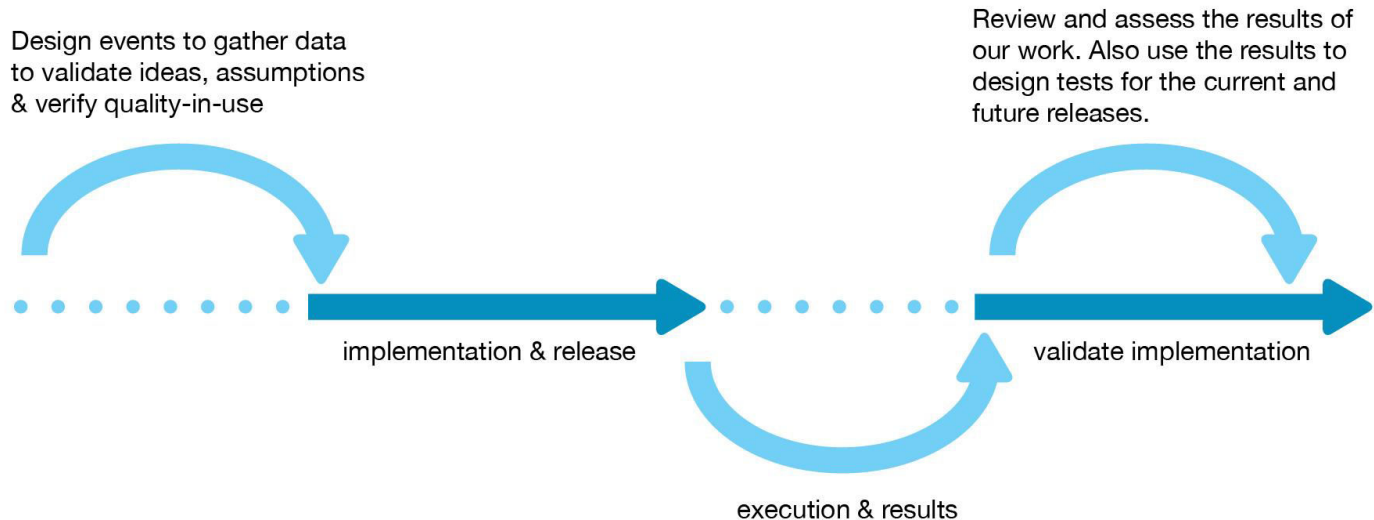
Incorporating reviews into devtest



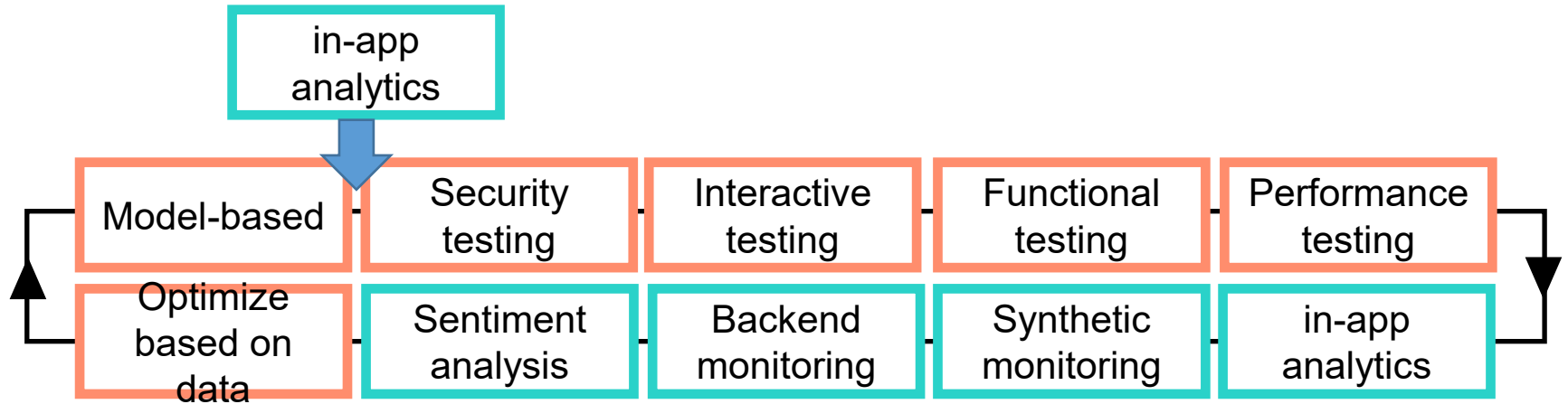
Test Recommendation Engine



Getting involved



Feedback cycles between testing and mobile analytics for the app



The dark side



Blog

iOS Apps Caught Using Private APIs

October 18, 2015

75%

of battery consumed by non-core features

30%

of battery used when screen is off

<http://www.purdue.edu/newsroom/releases/2015/Q3/new-tool-reduces-smartphone-battery-drain-from-faulty-apps.h>

Emotions: the missing ingredients

