How I learned testing from mobile browsers

Ioana Chiorean

Who is ~~Loana~~ Ioana Chiorean?

I am a PM (former QA TL) & CL @ Cognizant Softvision

Mozillian for more than 9 years now

I volunteer - Mozilla & EU Code Week.

I worked on devices for more than 10y.

Twitter @ioana_cis

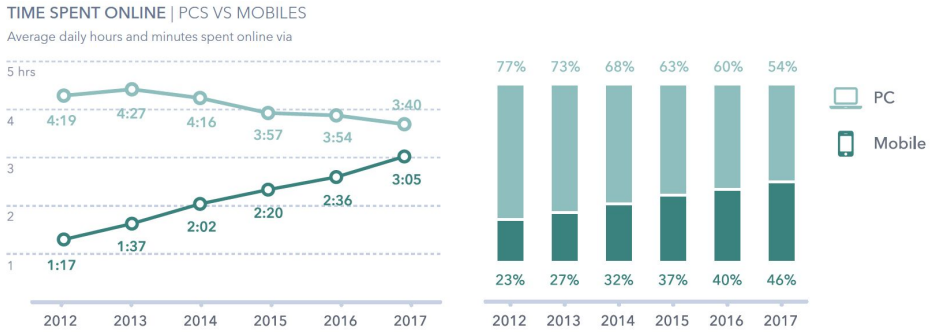
lifeofamozillian

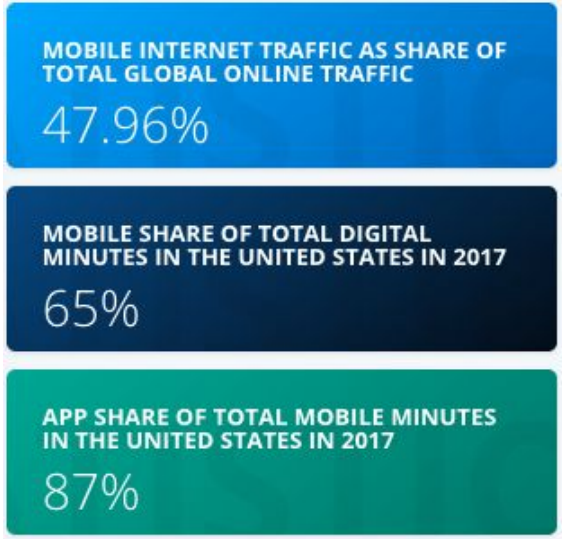
Agenda

1. why even?
2. how many apps are too many?
3. One single R reuse
4. never stop learning
5. the future is bright

Why even:

Alo? Internet here.





These stories are what power us.

New Markets (what does that even mean?)

1. Geographically

New Markets (what does that even mean?)

1. Geographically
2. Oldies but newly onlines

New Markets (what does that even mean?)

1. Geographically
2. Oldies but newly onlines
3. Babies

New Markets (what does that even mean?)

1. Geographically
2. Oldies but newly onlines
3. Babies
4. Everybody!

Do you have 4 minutes to talk about

Firefox for Android History Lesson

Welcome to Fennec
mozilla
Welcome to
Fennec
drag this way
for your tabs
drag this way
for controls

- ~ 2009
- XUL -> Java Native UI
- WebView - GeckoView

    - Bulky
    - Hungry
    - Large

- Hard to maintain
- Arhaic process
- All the addons in the world

Quiz time:

How many apps are too many?

Firefox Browser fas
Mozilla

Firefox for Android
Mozilla

Firefox Preview
Mozilla

Firefox Lockwise
Mozilla

Firefox Nightly for D
Mozilla

Firefox Send
Mozilla

Firefox Screenshot
Mozilla

Mozilla Stumbler
Mozilla

Firefox Reality Brow
Mozilla

Notes by Firefox: A
Mozilla

Reference Browser
Mozilla

Zero Waste approach in tech

5 Rs

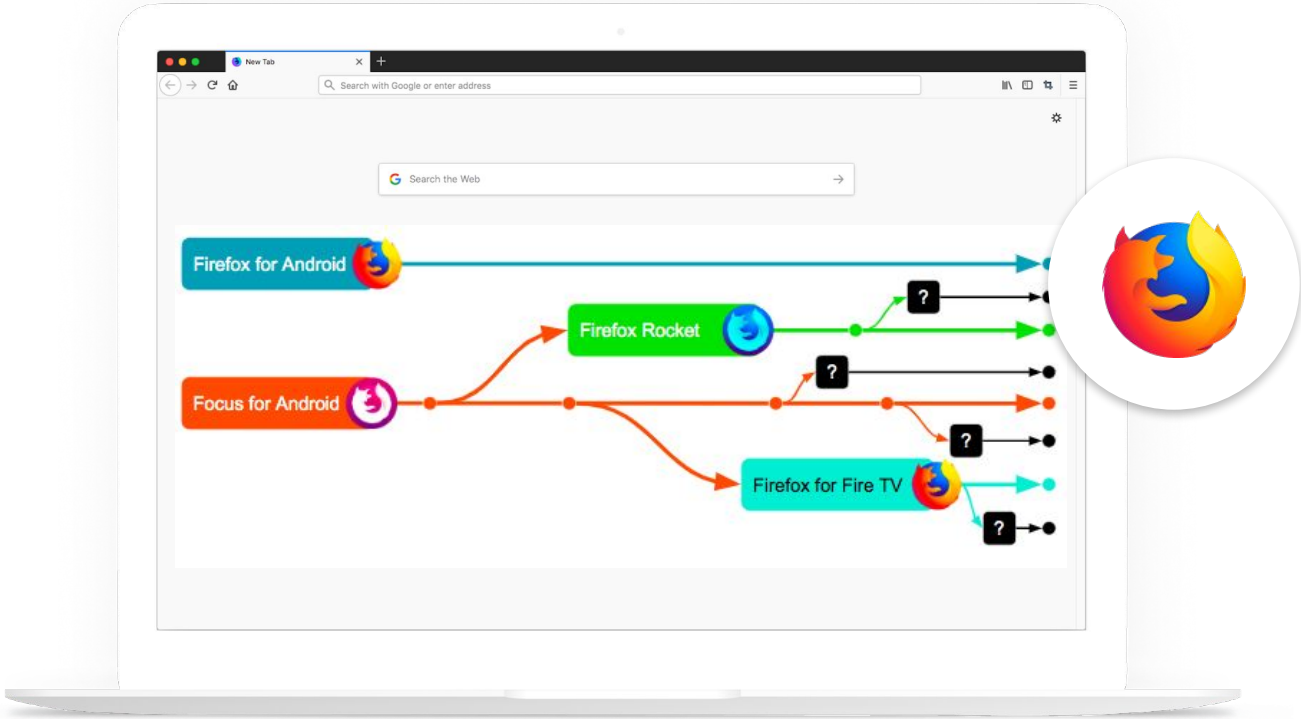
1. Refuse

1. Refuse
2. Reduce

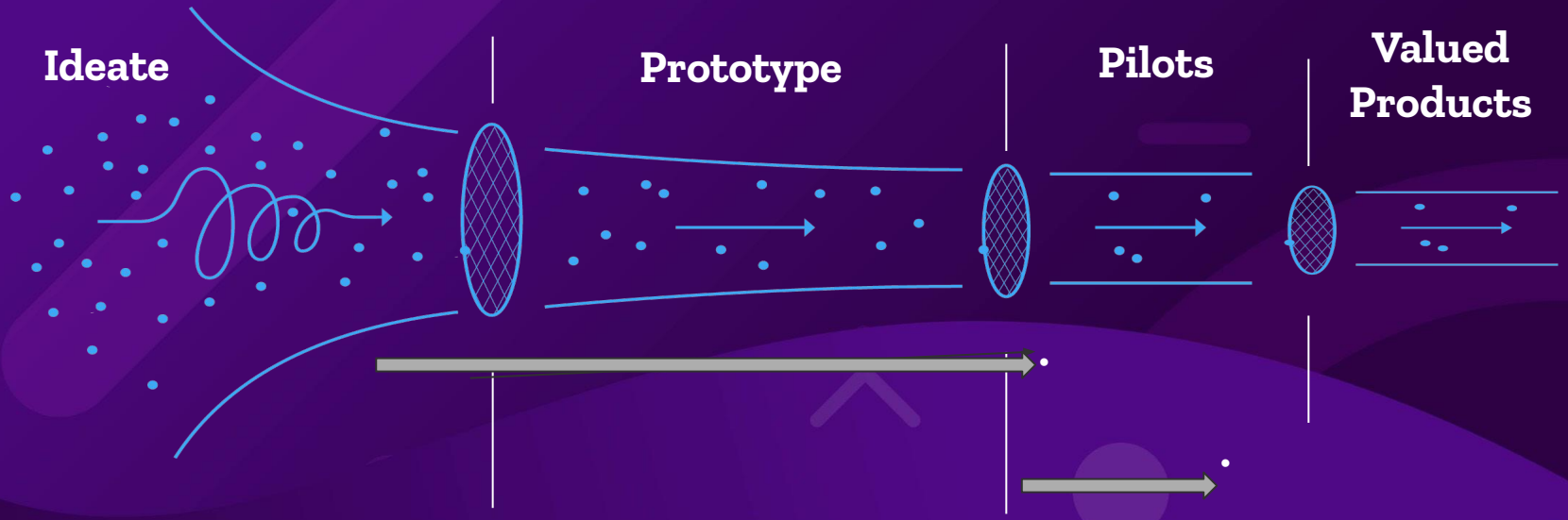
1. Refuse
2. Reduce
3. Reuse

1. Refuse
2. Reduce
3. Reuse
4. Repurpose / Rot

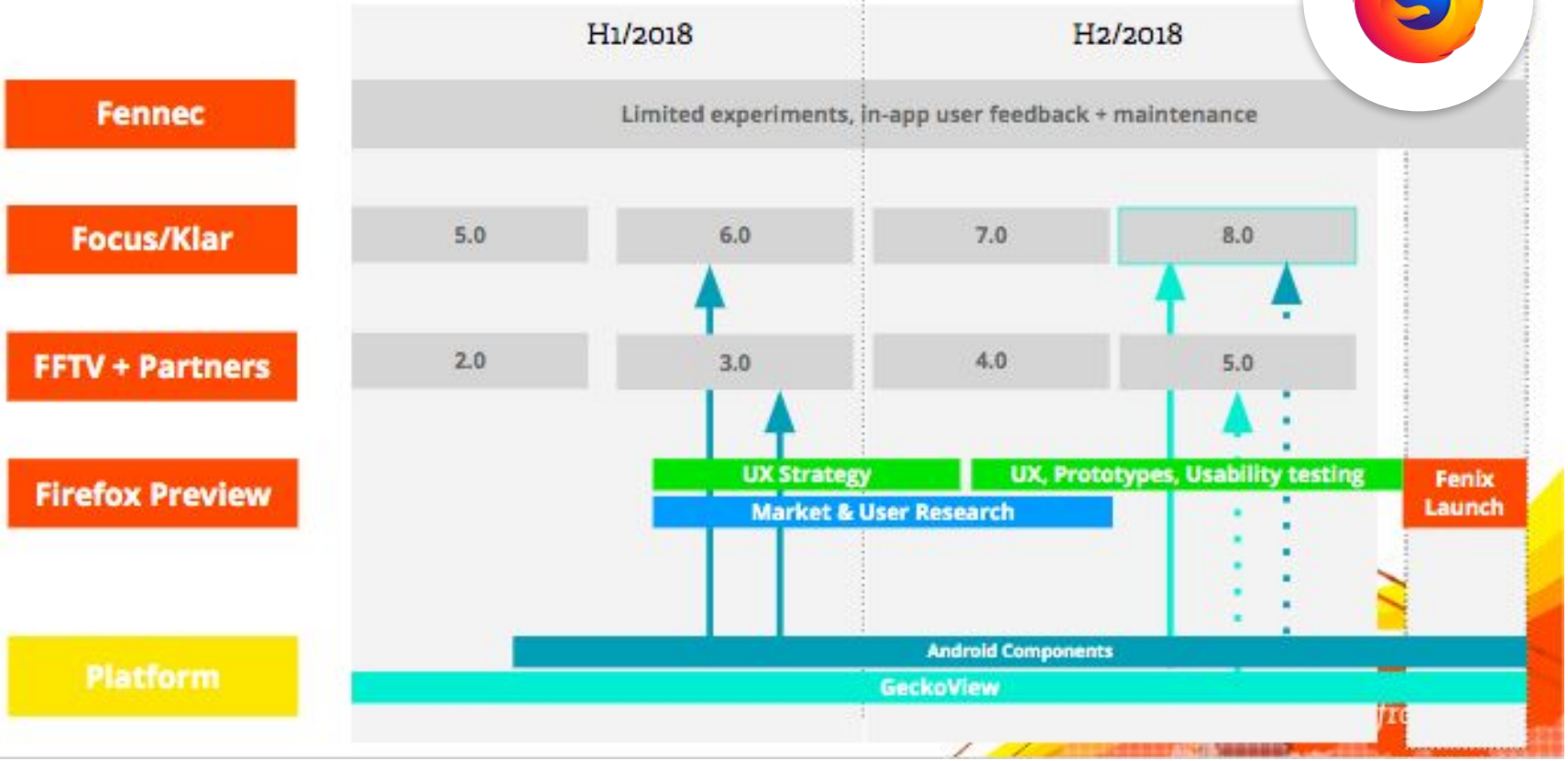
1. Refuse
2. Reduce
3. Reuse
4. Repurpose/ Rot
5. Recycle


New Tab
Search with Google or enter address
Search the Web
Firefox for Android
Firefox Rocket
Focus for Android
Firefox for Fire TV
?
?
?
?

Product Innovation Pipeline & Early Product Development



2018 Android Product Team



Projects that use Android Components

Focus

- Telemetry
- Crash Reporting
- Browser Session
- Domain Suggestions
- Search
- Auto-complete
- Error Pages
- Colors
- A/B Testing

Firefox for TV

- Telemetry
- Browser Session/Engine
- Toolbar

Firefox for TV

- Telemetry
- Browser Engine
- Fonts / Icons

Firefox for Echo Show

- Telemetry
- Toolbar
- Domain Suggestions
- Fonts / Icons

Lockbox

- Telemetry
- Crash Reporting
- Firefox Accounts
- Logins Storage & Sync
- Data Protection

Reference Browser

- Telemetry
- Crash Rerporting
- Gecko Engine
- Search
- Toolbar / Awesomebar
- Firefox Accounts
- History Storage & Sync

Fenix

Will use All The Things

Look Under Your Chair! Components!

Supporting Services

- Telemetry
- Glean (Telemetry v2)
- Crash Reporting
- A/B Testing

Generic UI

- Photon Colors,Icons, Fonts
- Progress Indicators
- Autocomplete Field
- More expected for Fenix

Firefox Services Ecosystem

- Firefox Accounts
- Sync (History, Bookmarks, Tabs)
- Send Tab

GeckoView Support

- Downloads
- Intent Processing (Sharing)
- Chrome Custom Tabs
- Context Menus (long presses in web content)
- Prompts (Alerts, dialogs, pickers)
- Find in Page

Browser Core

- Engines (System WebView, GeckoView, ServoView)
- Tab Management
- Tab Counter
- Permissions
- Tracking Protection
- Error Pages
- Toolbar / Menus
- Awesomebar
- Tabstray
- Search
- Storage
- Domain SuggestionS

Don’t stop me now, I’m having a good time

Never stop learning..

Software testing is an investigation conducted to provide stakeholders with information about the quality of the software product or service under test.

Jack of all trades, master of ALL!*
* not a bug, it is a feature

Advocate of user - UX

Software Engineer - coding

Explorer - Creative work

Scientist - Heuristics / Measurements

Writer / Documentarist

Analyzing users stories and/use cases/requirements for validity and feasibility

Collaborate closely with other team members and departments

Execute all levels of testing (System, Integration, and Regression)

Design and develop automation scripts when needed

Detect and track software defects and inconsistencias

Provide timely solutions

Apply quality engineering principals throughout the Agile product lifecycle

Provide support and documentation

Tester’s CV

Looks like a CV, but it is not, don’t worry..

Attention to details
Analytical thinking
Independence
Proactivity
Ownership
Logical thinking
Creative
Continuous learning
Efficient communication
& so many other...

Fennec

Aka Firefox for Android

- ~ 2009
- XUL -> Java Native UI
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- Large

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Testing Fennec

Aka Firefox for Android

- Load
- Compatibility
- Reliability
- Smoke / Beta / Acceptance
- Integration
- System
- Regression
- Automation

- 450 BFTs
- ~55 Smoke

Fennec iOS

Yeah Aka Firefox for iOS

- ~ 2015
- Webkit
- New tools

Testing Fennec iOS

Yeah Aka Firefox for iOS

- ~ 2015
- Webkit
- New tools

Firefox TV

Aka Firefox for Fire TV

- fireman
- new perspective in as client/PMO
- Partnerships

Testing Firefox TV

Aka Firefox for Fire TV

- fireman
- new perspective in as client/PMO

- WebCompatibility
- Audio/ Video encryptions
- Hardware / 4K
- Writing with a remote?

Focus

- The guard
- Fast
- Safe
- Simple

Testing Focus

- The guard
- Fast
- Safe
- Simple

- Non functional testing focus
- Security - PB, ETP, DNS over HTTPS
- Load
- Reliability
- Smoke
- No tests reused

Reference Browser

- The player
- Kitchen experiments
- A-C
- Not sociable but smart

Testing Reference Browser

- The player
- Kitchen experiments
- A-C
- Not sociable but smart

- No UX testing
- Unit Testing
- Component Testing
- Documentation

Firefox Lite

- The slim one
- Fast
- Simple
- Funky - aka Screenshoty’

Testing Firefox Lite

- The slim one
- Fast
- Simple
- Funky - aka Screenshoty’

- One Localization / Market
- Performance
- Low connectivity or none at all

Firefox Preview

- Has everything new
- June 2019
- A-C based

- XUL -> Java Native UI -> Kotlin
- WebView - GeckoView
- New process - Github

Testing Firefox Preview

- A/B testing
- UX
- Alpha testing
- WebCompatibility
- Performance
- Install
- Localization
- New testplan, test suites

- Test everything!

One more thing..

Pun intended..

Firefox Accounts

- Growing
  - 2018: 6.6% -> 9% of Firefox users
- FxA users more engaged
  - Sync users visit ~50% more URIs
  - 50% of the days of the month, vs. 33% for non-users
- Desktop -> Mobile
  - 12.5% of users login on mobile within 2 days after creating desktop account

The future is now.

The future is bright.

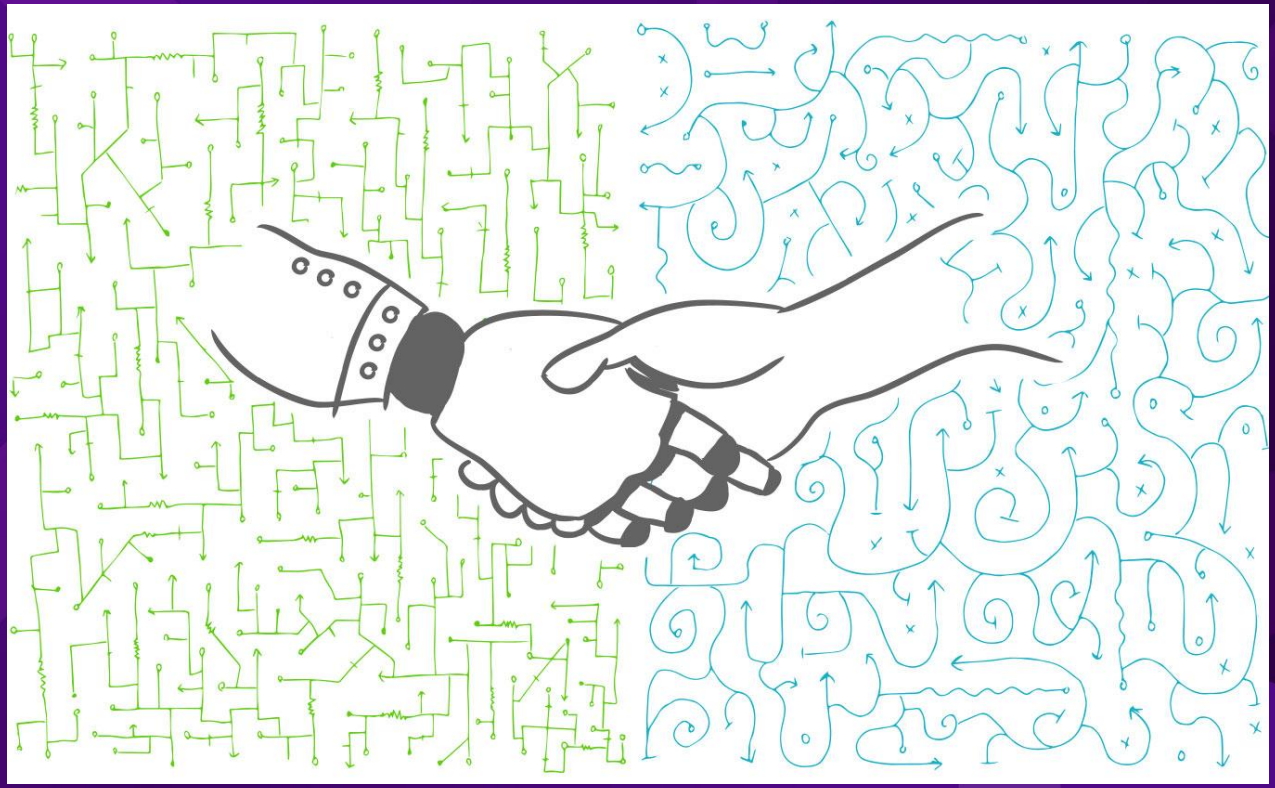
Don’t be the sheep!
Be the ~~wolf~~ fox!

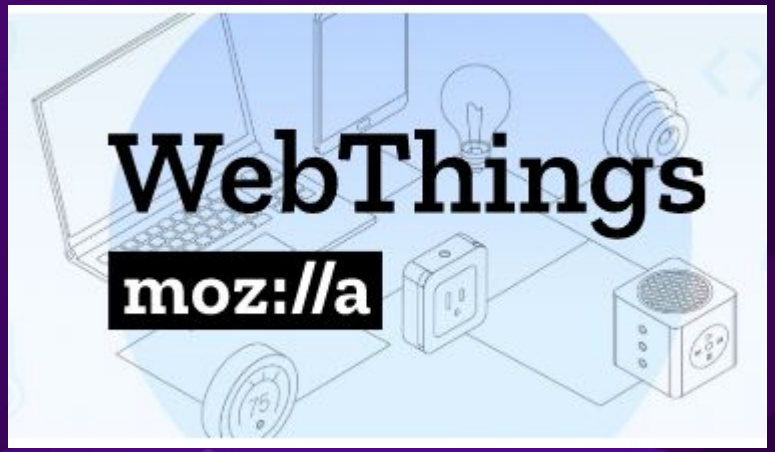
Photo credit.

Recap.. sort of..

Strategies:

- Timely planning testing
- Automation vs Manual Investment
- Smoke/ Acceptance testing
  - as little as possible for the oldies
  - As much as needed for the newbies
- Specialise
- Be “lazy”
  - Firefox Rocket/Lite - One language vs Fenix/Fennec - multi L10n




WebThings
moz://a

http://webcompat.com/

BUG REPORTING
FOR THE WEB.

@ioana_cis

ioana@mozilla.com

http://bit.ly/rsconf-ioana

https://github.com/mozilla-mobile

Let’s fix the world one bug at a time!