Geoff Stead,
@geoffstead

Head of Mobile Learning
Qualcomm

Tools Techniques Approaches

How Qualcomm is creating mobile learning tools, apps and systems

QUALCOMM®

Work Learn Mobile .org

If you remember 5 things . . .

Five key messages from this presentation

1

Plan for Agility

- Launch. Learn. Improve. Iterate

2

UX is king

- To succeed, your app HAS to feel good to use

3

Visual Protoypes save time, money and arguments

- Use mobile prototypes to test out designs, and ideas before coding
- They form a “shared language” between all stakeholders

4

Web first, then Native

- Mobile web is quicker, cheaper, safer. Often a good starting place.

5

WorkLearnMobile.org

- Find out more about excellence in workplace mobile learning

Who is Qualcomm?

The biggest mobile company you haven't heard of . . .

Global leader in mobile and wireless engineering development

Partners with wireless operators, device manufacturers, software vendors and distribution suppliers

Qualcomm employee landscape

Over 31,000 employees

- ~65% have engineering backgrounds

175 worldwide locations

- Headquartered in San Diego, CA
- 24% of employees located internationally

Employee growth

- Total employee base grew 90% in past five years
- International employee base grew 200% in past five years

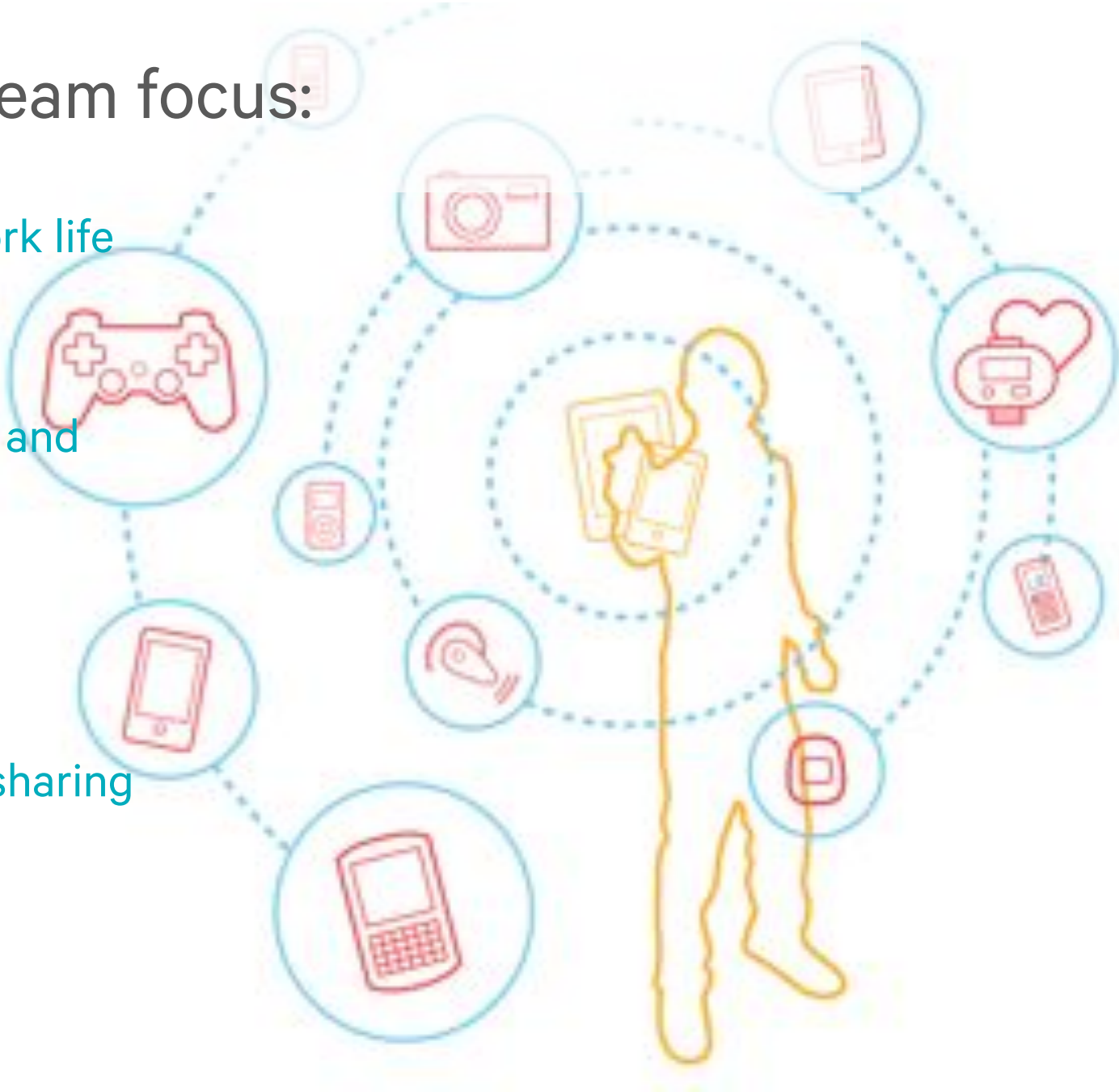
Qualcomm mobile learning team focus:

Developing and licensing apps to make work life easier

Making mobile content available wherever and whenever our employees need it

Supporting Employee Performance

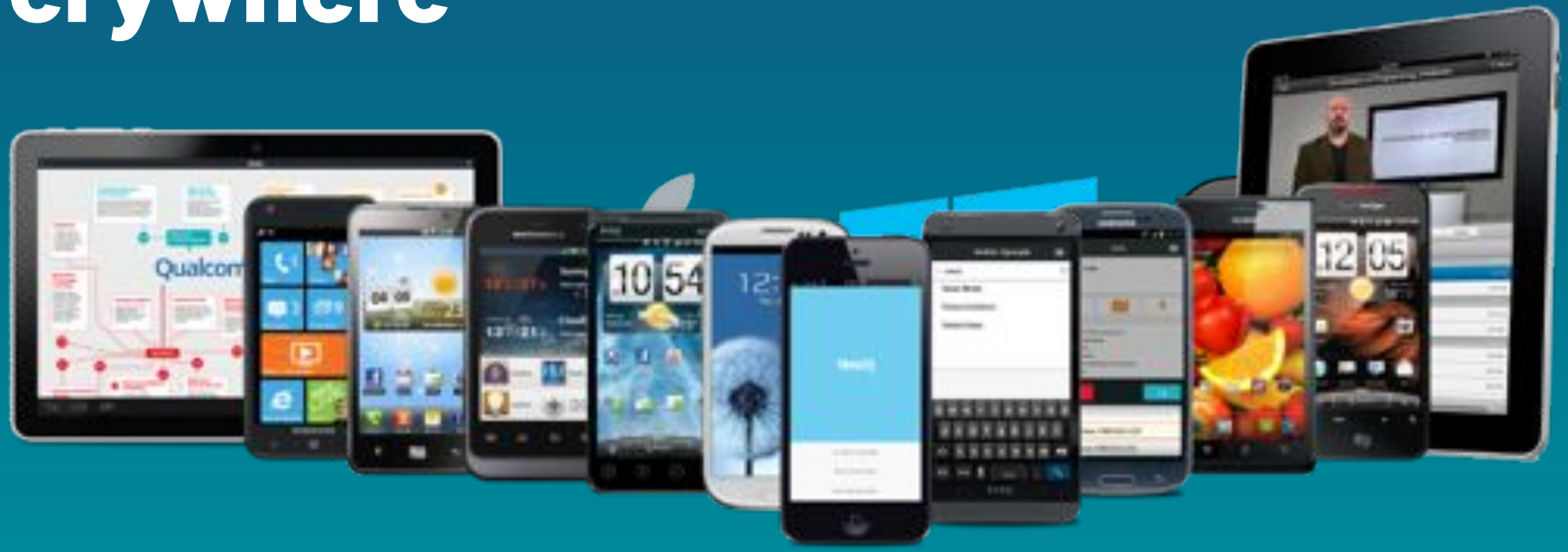
Learning what works for Qualcomm, then sharing with partners



Content and Tech Challenges Everywhere

Multiple OS platforms
Hundreds of device types
Access restrictions / Security
Mobile enabled content

Content and Tech Challenges Everywhere



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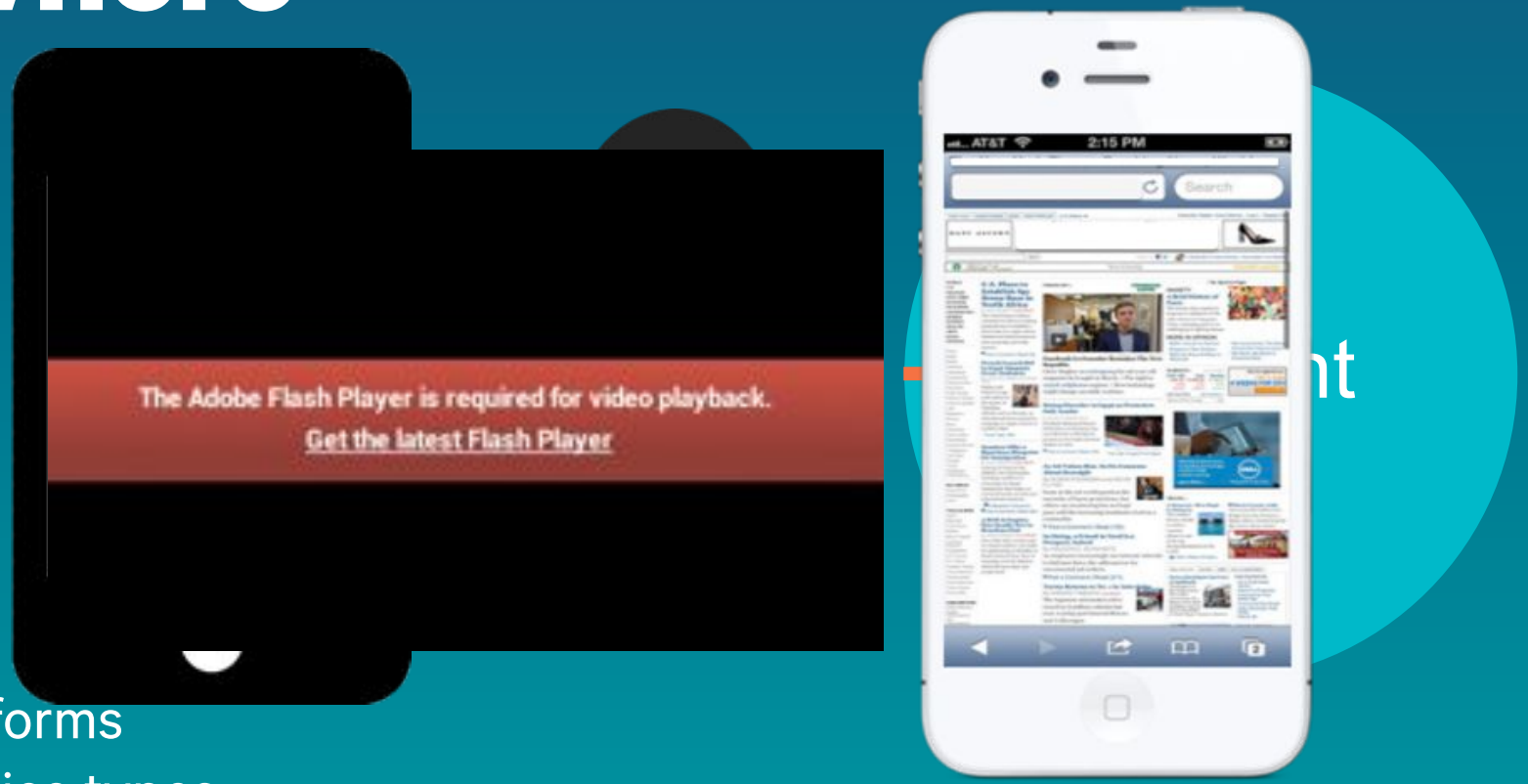
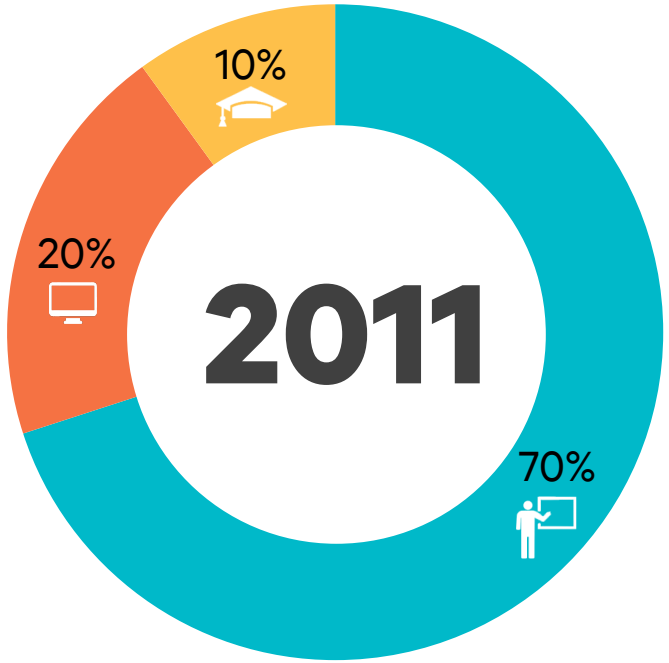
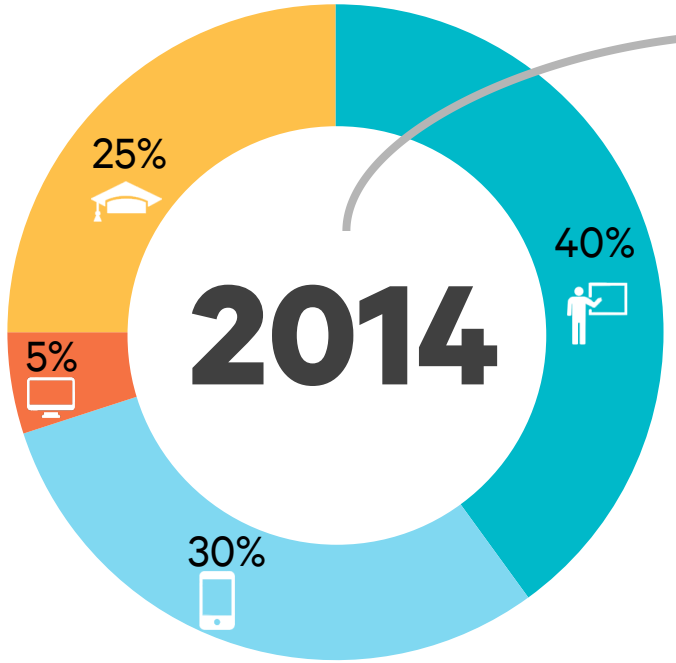


Multiple OS platforms
Hundreds of device types
Access restrictions / Security
Mobile enabled content

Mobile content has changed the landscape of Qualcomm learning delivery





PANOPTO

go/lynda

Mobile Manage Mentor

IEEE

Stanford University

Instructor Led Training

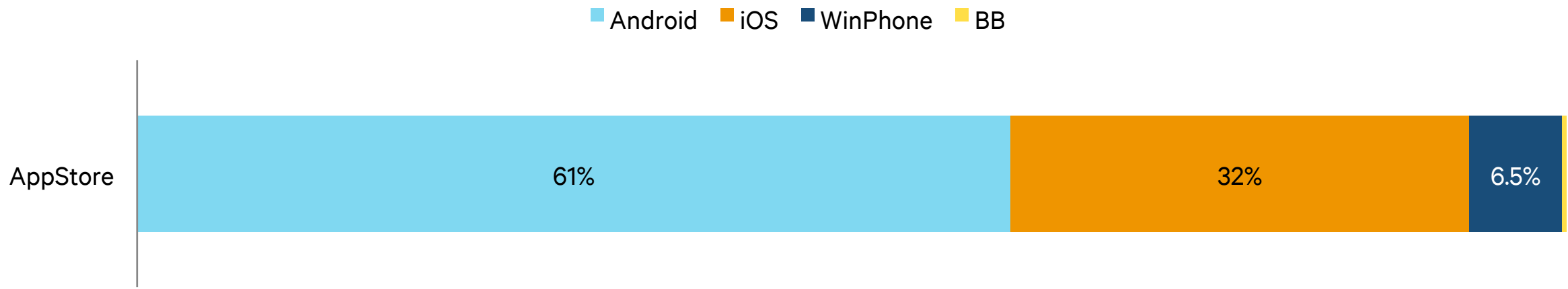
Leader/Expert Led

Online*

Mobile

Qualcomm Internal mobile audience

- Mobile Learning available to all employees (BYOD support)
- Qualcomm constantly monitors employee mobile access, to ensure widest support
- Android dominates, but iOS comes a close second
- Small but significant WinPhone audience, with strong regional variation



Qualcomm Uses A Variety of Content

Use individually or in combination to provide your employees the resources they need

Vendor

Custom-built or off-the-shelf

Qualcomm Developed

Internally developed for higher degree of context or showcase in-house expertise

User Generated

Curated, freely available content from global sources

The Qualcomm Employee App Store

Made with: Wordpress +

Open ecosystem. BYOD.

Web apps. Android apps. iOS apps

Homemade apps. Vendor apps

Wide range:

- Engineering Development
- Leadership Development
- Learning
- Productivity
- Culture & Orientation
- Reference

Apps in our pipeline = opportunities to try many tools

At any moment we might have 20 new apps, or tools in development.

We're constantly learning, iterating, improving, experimenting

Trello = simple management

In mobile, there are no absolutes

(I am sure of that!)

Launch, and learn
Go for widest reach
(and avoid these debates!)

HTML5 vs Native

Tablet vs Smartphone

Web vs App

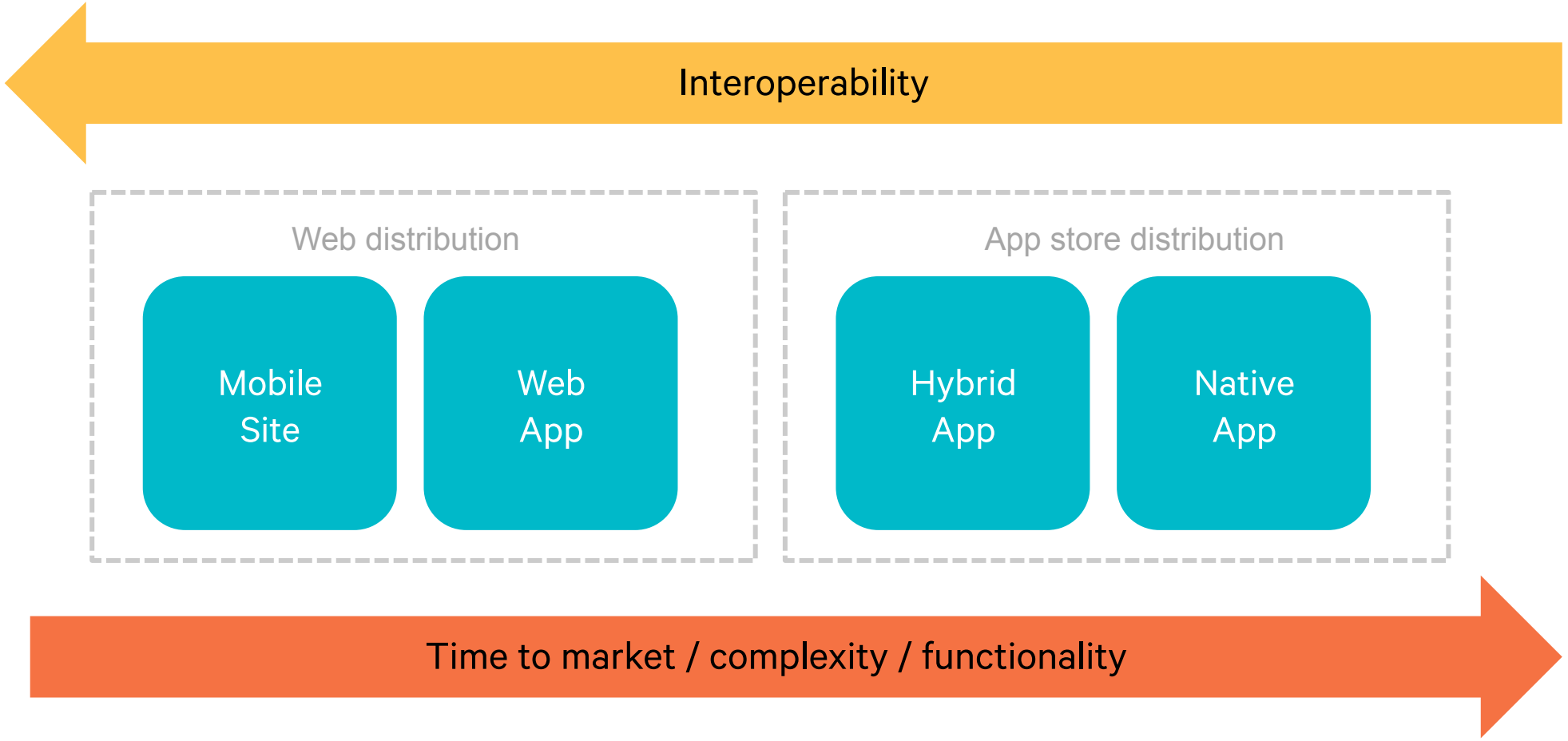
iOS vs Android vs BB vs Win

Apple vs Samsung vs Huawei vs ZTE vs Nokia

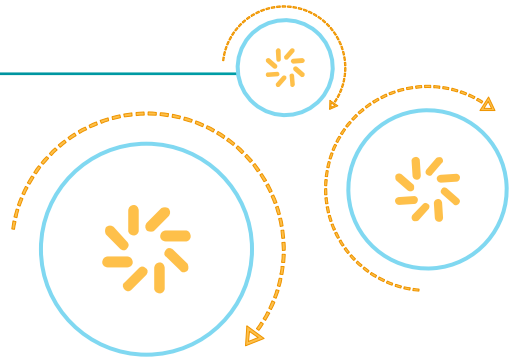
LMS vs mLMS vs no LMS

etc etc etc

App development: approaches



Mobile web / Web App



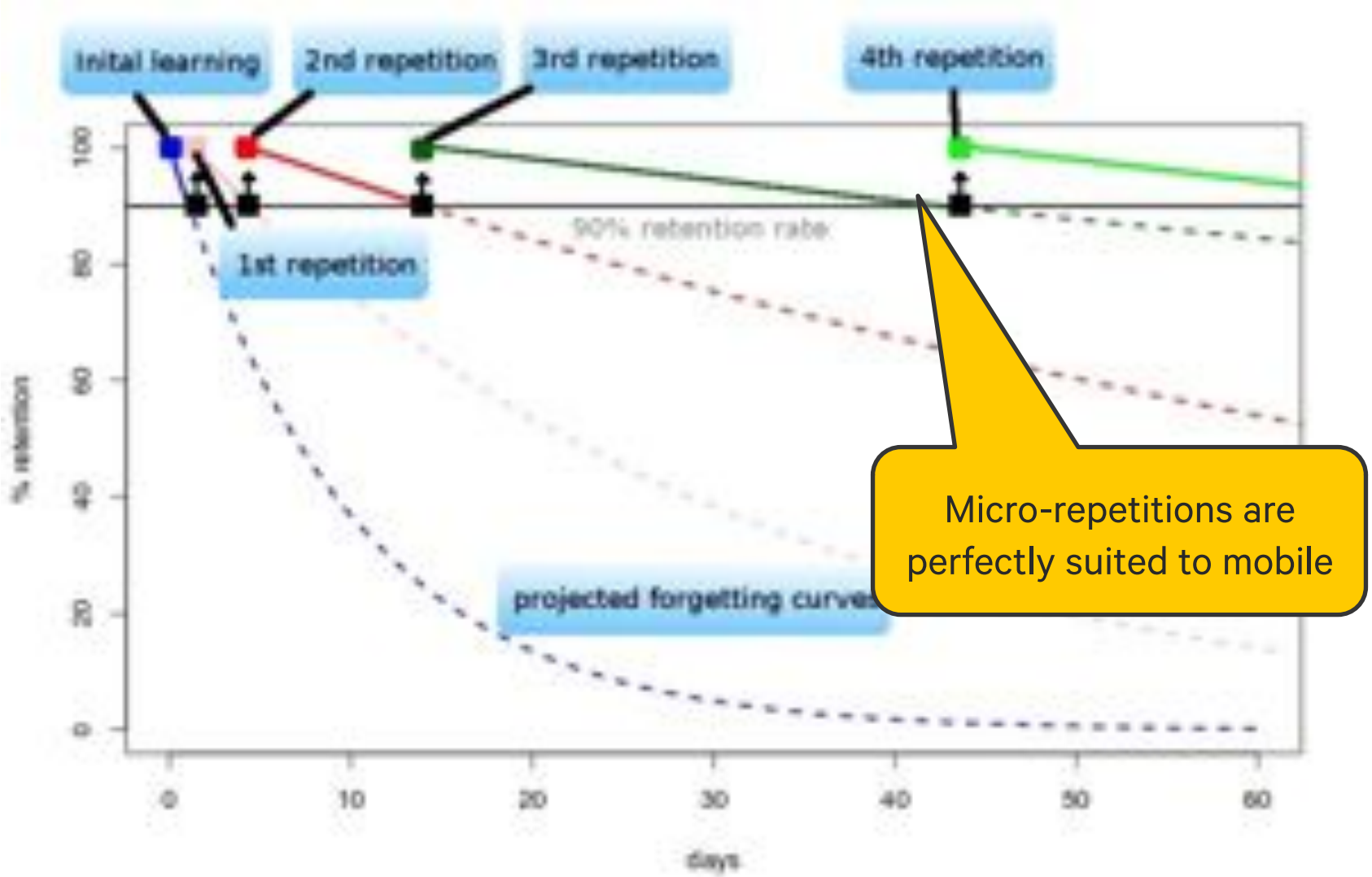
Who Knows?

Made with: Askbot

Guru Talks

Made with: HTML5

The Forgetting Curve (and power of repetition)

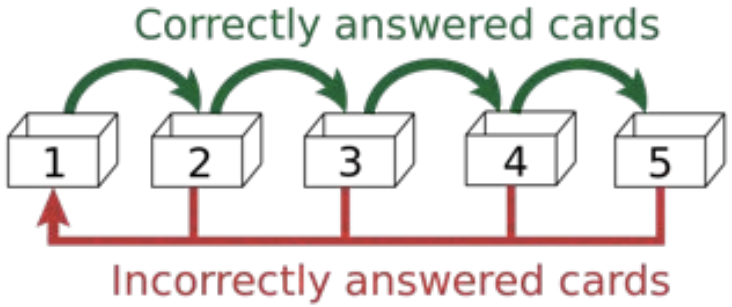


Micro-repetitions are perfectly suited to mobile

Ebbinghaus

Spaced Repetition

Leitner system



QC Lingo

Made with: HTML5 on Node.JS

Hybrid game engine + Leitner memorizing system

tiny.cc/oldelingo

Timeline apps (QMuseum)

Web-based

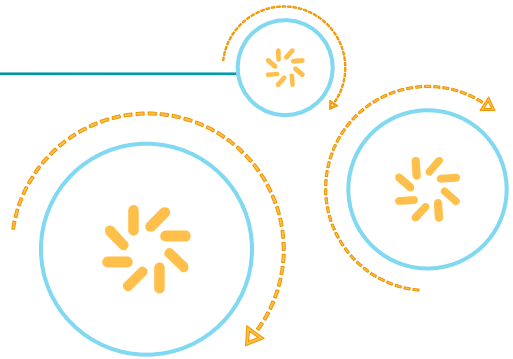
Embedded Video

Swipable timeline

Demo link: http://tiny.cc/museumtimeline

Qualcomm How2 guide at http://tiny.cc/how2timelinejs

Moving to Native Apps



From web app to native app

Web-based

Embedded Video

Swipable timeline

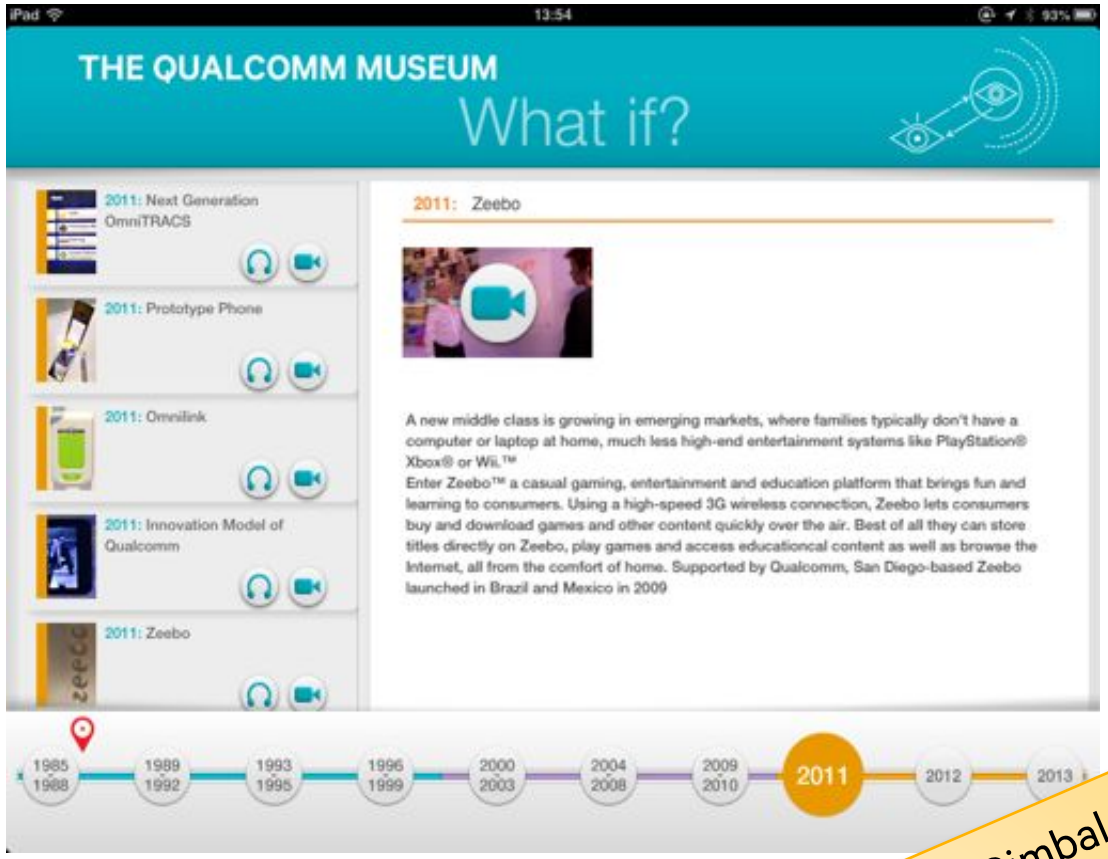
Native app

Offline viewing of video possible

Knows your location to push relevant content

Qualcomm Museum Tour

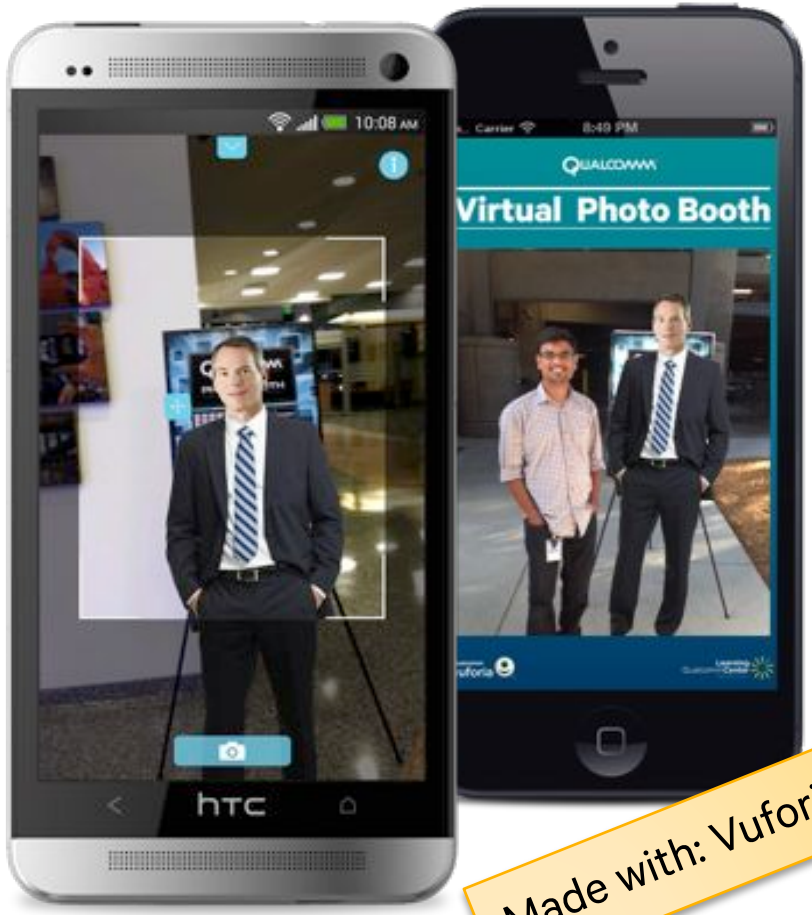
Museum Tour



Made with: Gimbal Proximity

http://bit.ly/QMuseumTour

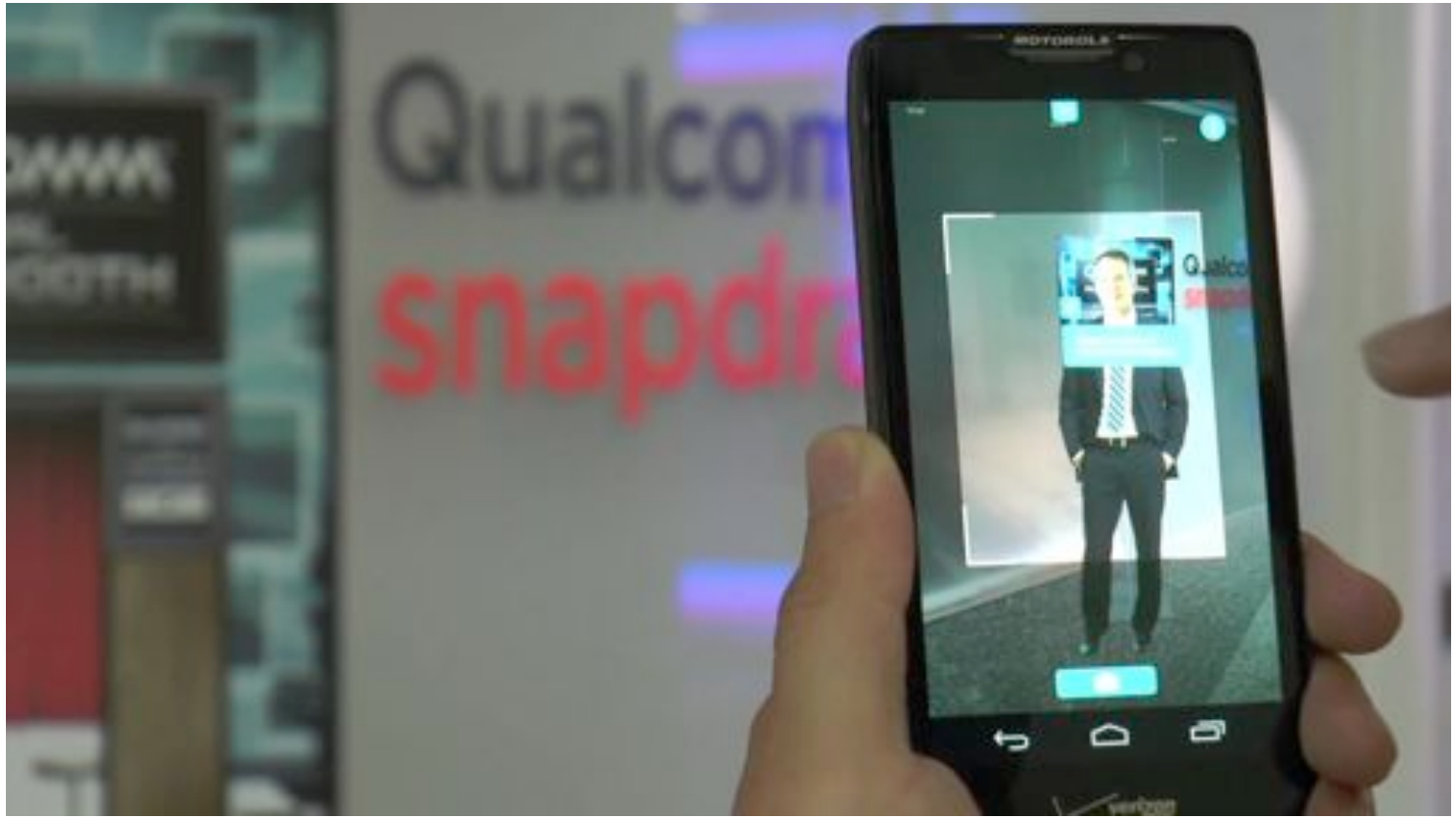
Exec Photo Booth.



Made with: Vuforia

http://bit.ly/virtualpb

Qualcomm Virtual Photo Booth



http://bit.ly/virtualpb

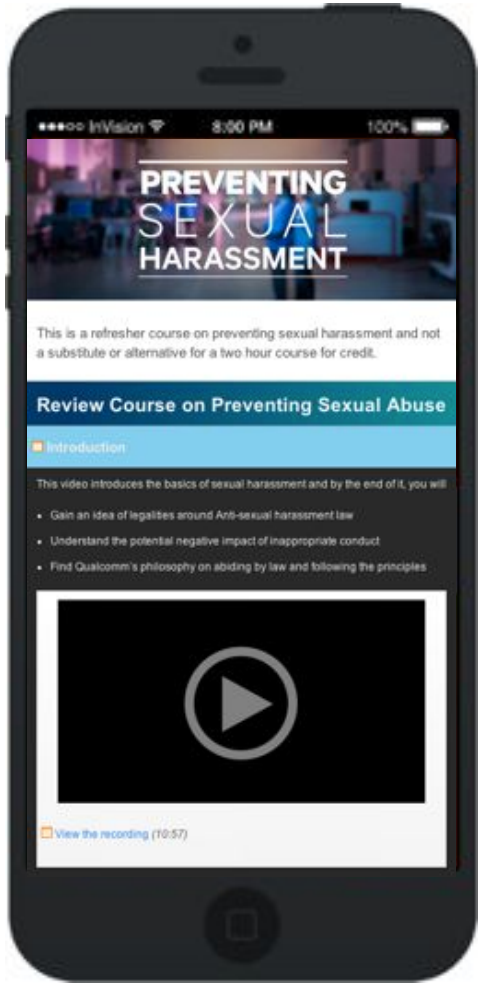
QMaps

- Building map and information
- Key features
  - Search for Qualcomm buildings and get navigation info
  - View building amenities
  - View floor maps
  - View shuttle routes and call shuttle

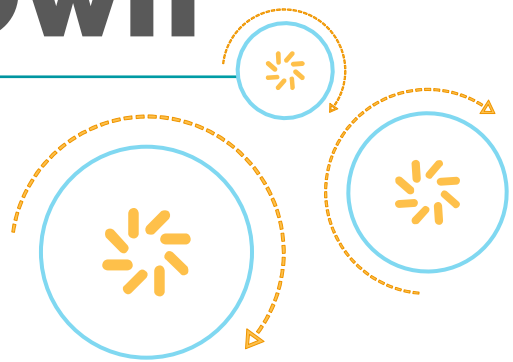
Compliance apps

Mobile Foreign Corrupt Practices Act, Preventing Sexual Harassment app

- Business critical
- Performance support
- Development challenges
  - Legal reviews
  - Approvals
- Web apps
  - Speed and agility



Top Tips For Making your Own



Communication:
Finding a shared language
for all stakeholders is critical!

Spend time in Wireframes & Rich Prototypes

A shared language between all stakeholders. Easy way to preview & test out an app

Qualcomm's top 10 tools for building mobile prototypes:

- Invisionapp
- FluidUI
- Flinto
- Proto.io
- Concept.Ly
- Fieldtestapp
- PopApp
- Easel.io
- Xiffe
- Solidify

Download our Top 10 list here:
tiny.cc/top10prototools

> Start Simple

> Launch and Learn

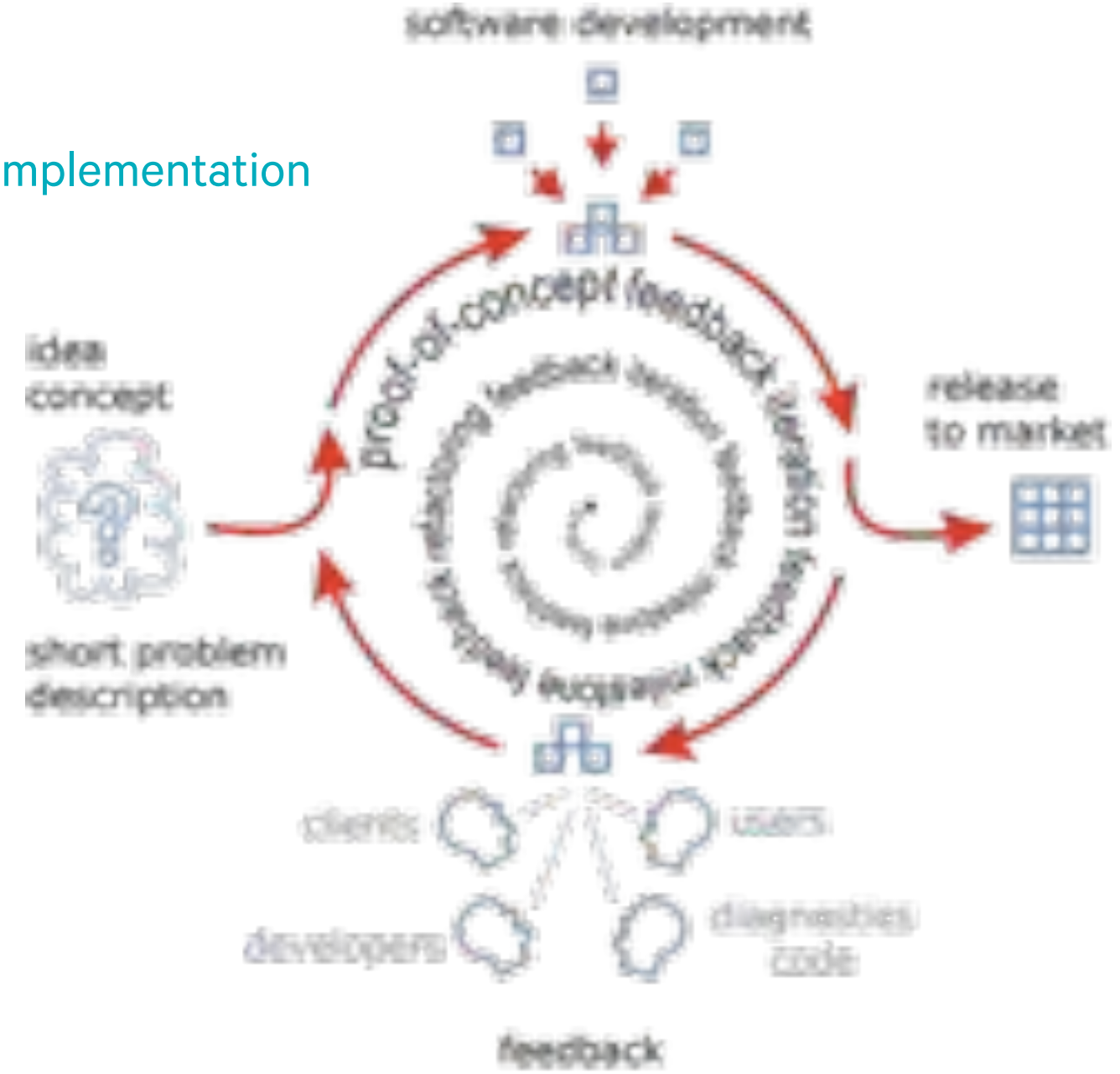
> Refine

> Repeat

Be Agile

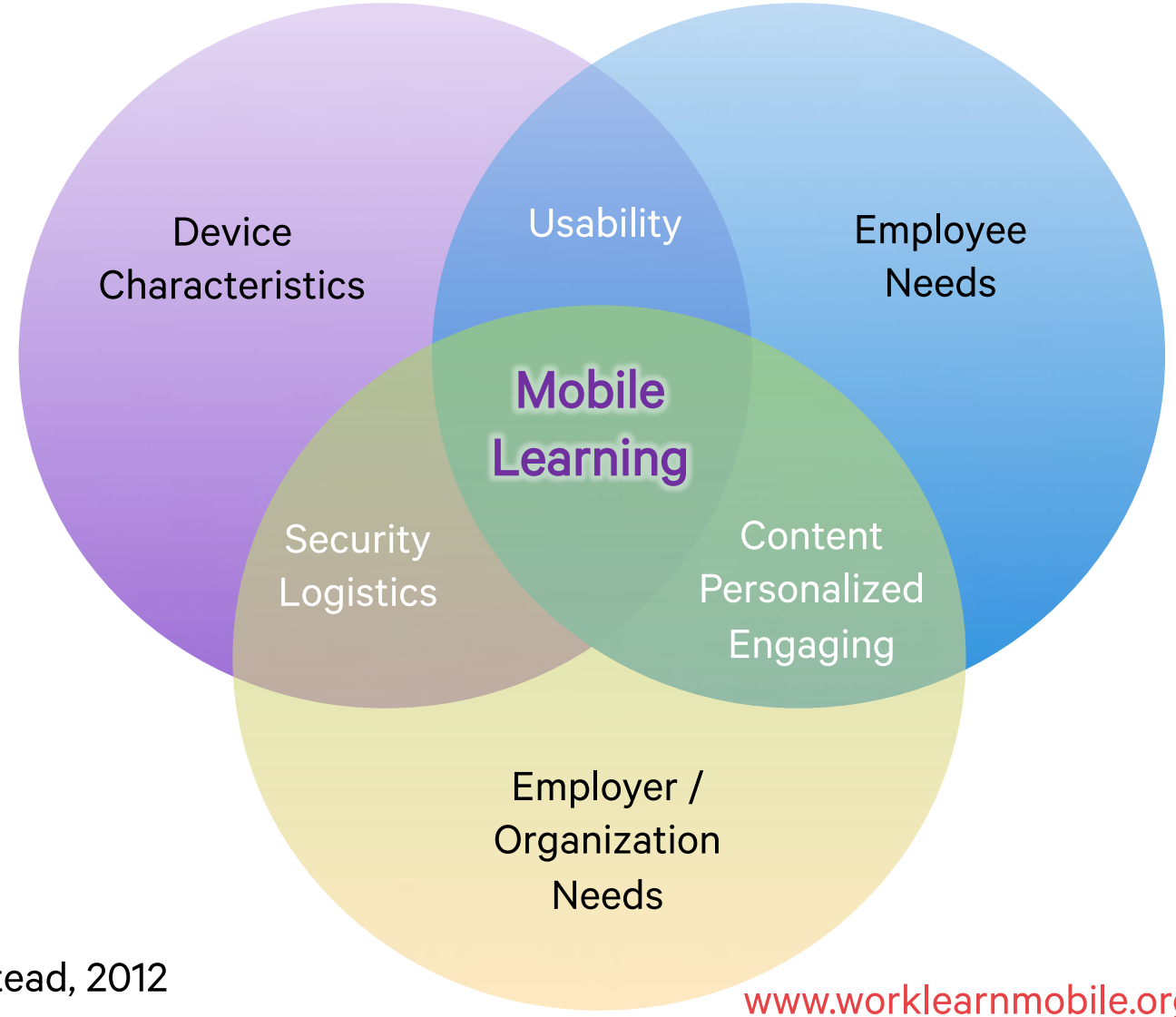
Agile = essential for development AND implementation

- Start small, and grow
- Plan for multiple iterations
- Include stakeholders
- Incorporate user feedback
- Launch. Learn. Improve.



ONE SIZE
DOES NOT
FIT ALL

Enterprise Mobile Learning Model



Don't expect to solve every challenge at once. One size can never fit all

Best solution is a balance between device, employee & employer

Success is often broader than a simple Learning Outcome

Stead, 2012

www.worklearnmobile.org/articles/a-model-for-corporate-mobile-learning/

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Expert Insights

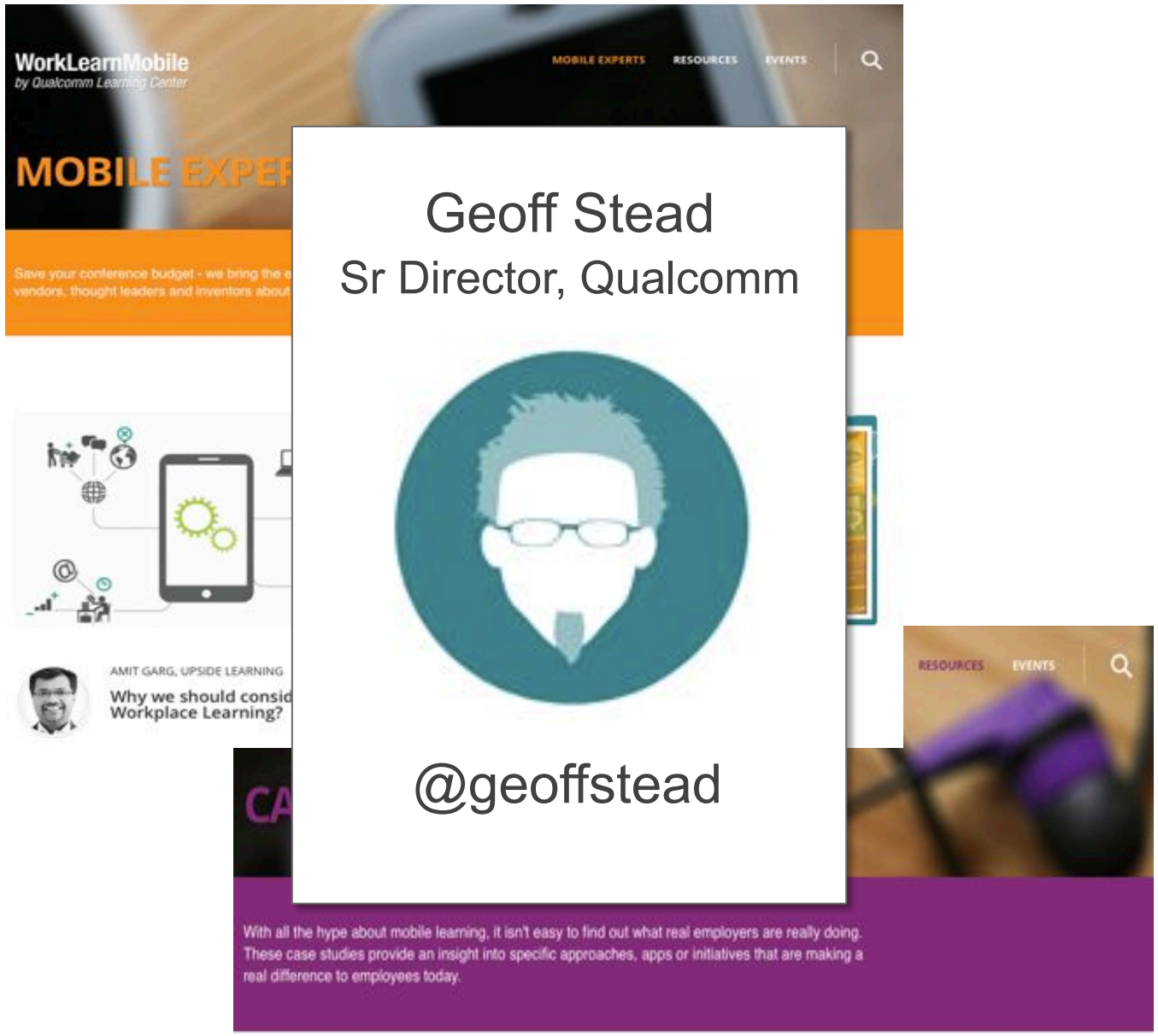
Free advice from experts

Case Studies

Trends and ideas

News & Views

Insights from Qualcomm's m-learning team

Resources

Links to m-learning info