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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



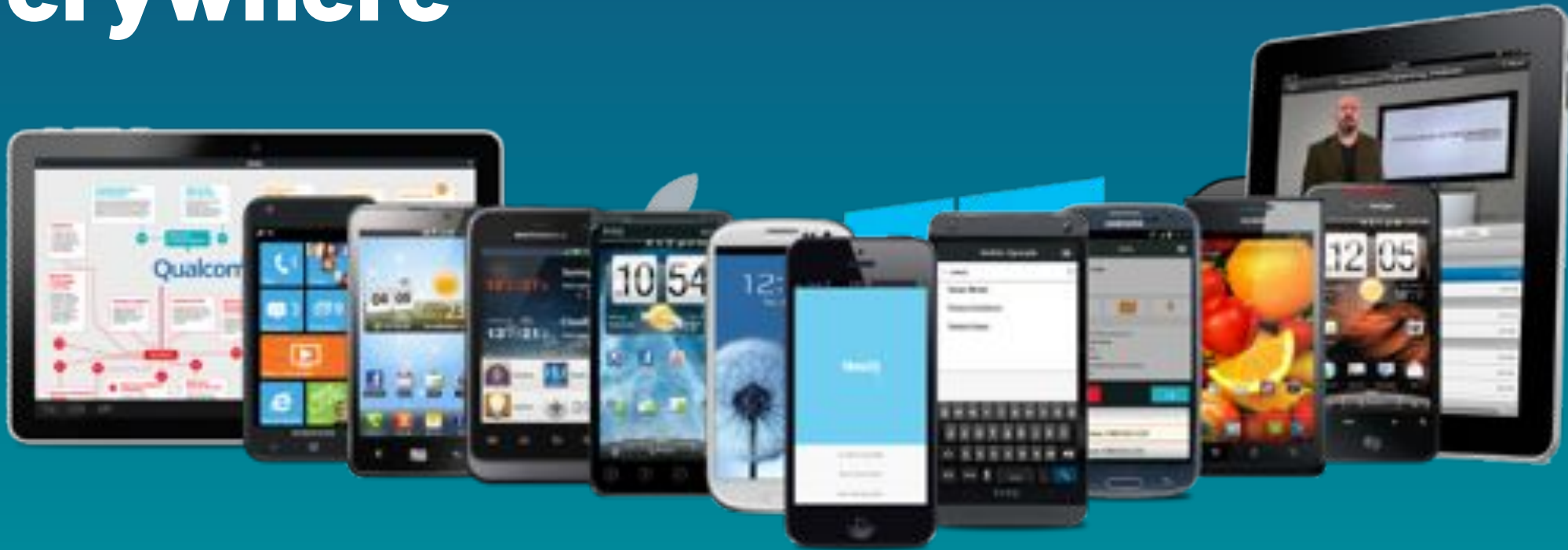
Multiple OS platforms

Hundreds of device types

Access restrictions / Security

Mobile enabled content

Content and Tech Challenges Everywhere



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Content and Tech Challenges Everywhere



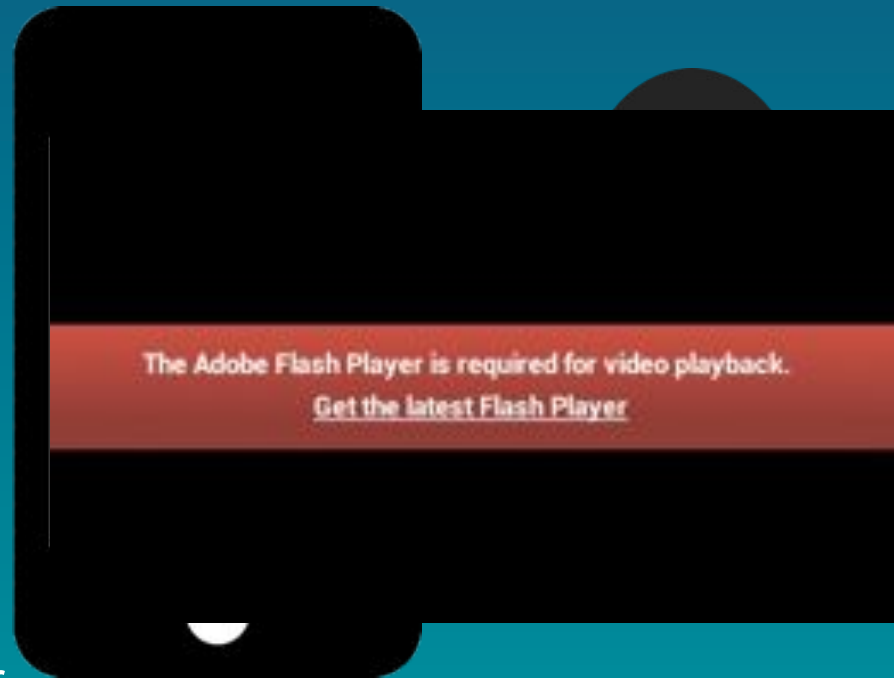
Multiple OS platforms

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Access restrictions / Security

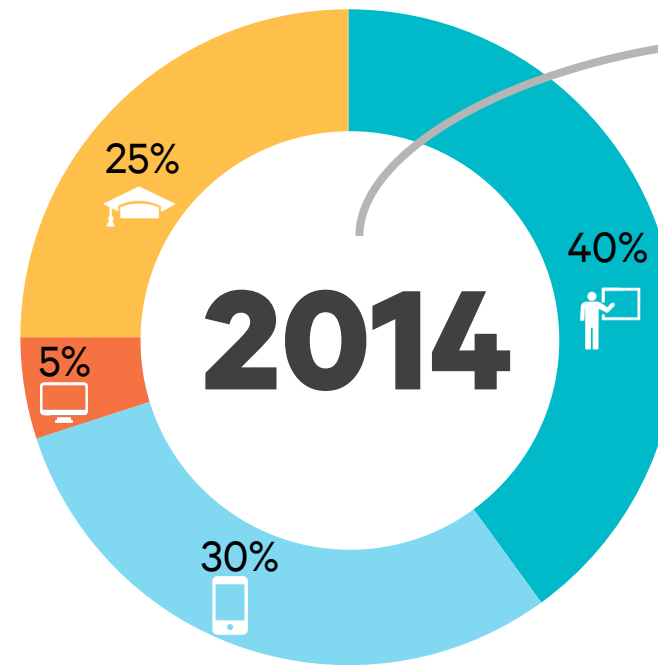
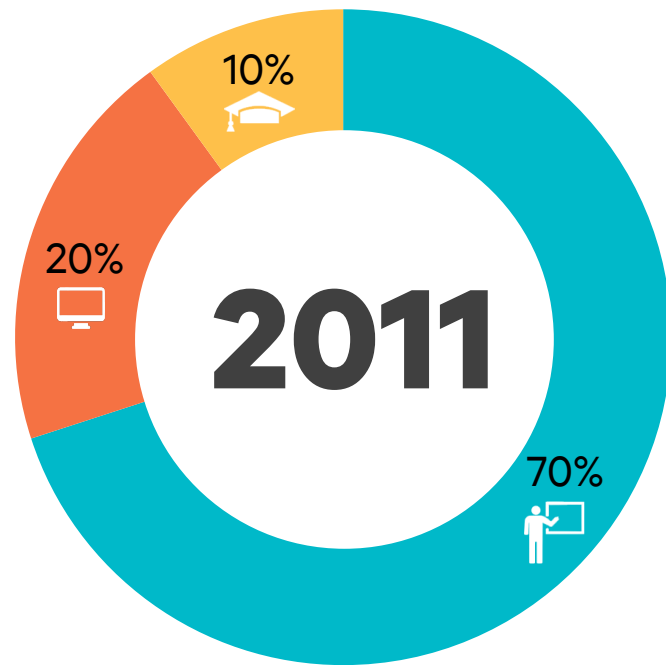
Mobile enabled content

Content and Tech Challenges Everywhere



- 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
 LEHIGH 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

■ Android ■ iOS ■ WinPhone ■ BB



Qualcomm Uses A Variety of Content

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

Vendor

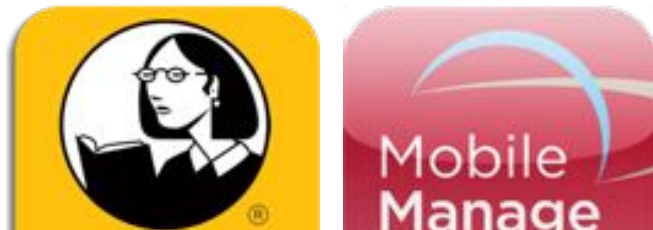
Custom-built or off-the-shelf

Qualcomm Developed

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

User Generated

Curated, freely available content from global sources



Made with: Wordpress +

The Qualcomm Employee App Store



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

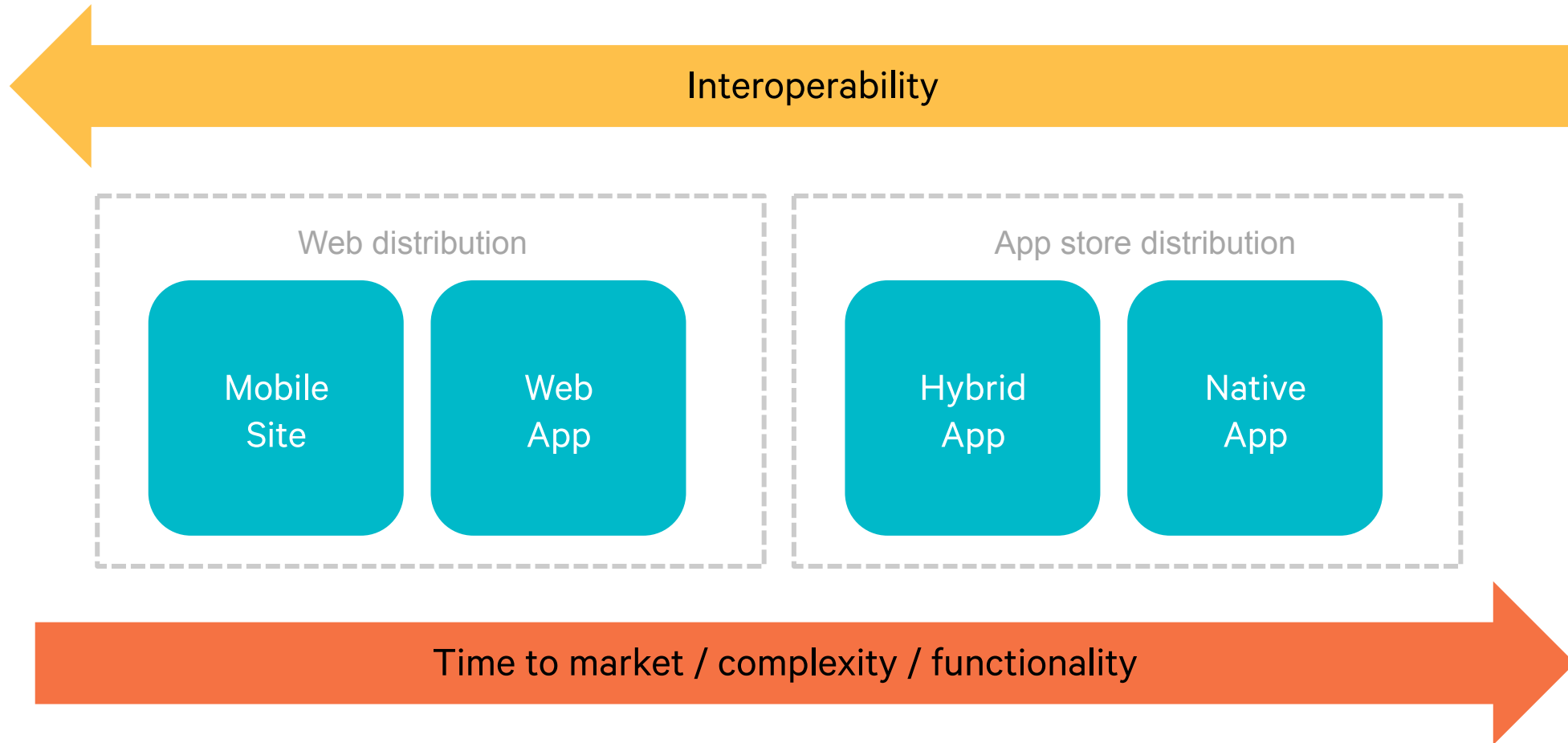
Apple vs Samsung vs Huawei vs ZTE vs Nokia

LMS vs mLMS vs no LMS

etc etc etc

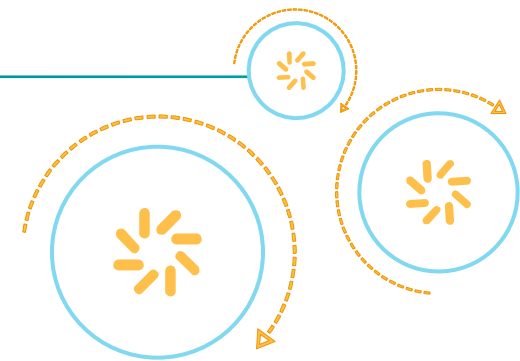


App development: approaches





Mobile web / Web App



Who Knows?

Who knows? Login with your QualPass help

ALL UNANSWERED

538 questions

Sort by: by date by activity by answers by votes RSS

How do I get access to omniscan?	1 vote	1 answer	66 views
project/BU-specific questions	1 vote	1 answer	88 views
When will the next Open Source Summit be?	2 votes	1 answer	52 views
Did we do any modifications to askbot through askbot-devel.git?	2 votes	1 answer	56 views
How does one vote?	3 votes	3 answers	126 views
Why do I have to register with an external site to change my profile picture?	5 votes	2 answers	108 views

Made with: Askbot

Guru Talks

Menu

Guru Talks
by engineers for engineers

Experts are all around us. Perhaps it is the colleague down the hallway, your teammate in another city. It might be you. "Guru Talks" is an effort led by engineers for engineers, to capture and share technical knowledge. Knowledge that has a Qualcomm context, that is relevant for our needs.

Backed by the Learning Center, we record and condense your presentation. We help keep it short and to the point. You provide the expertise, we take care of the rest. We welcome your ideas, suggestions and nominations for upcoming talks. This is YOUR community.

Upcoming Talks

- MAY 13, 2013 - Windows Driver Debugging D0j5
- MAY 15, 2013 - The "Re"-Evolution in Photolithography Solutions for Advanced nodes

Made with: HTML5

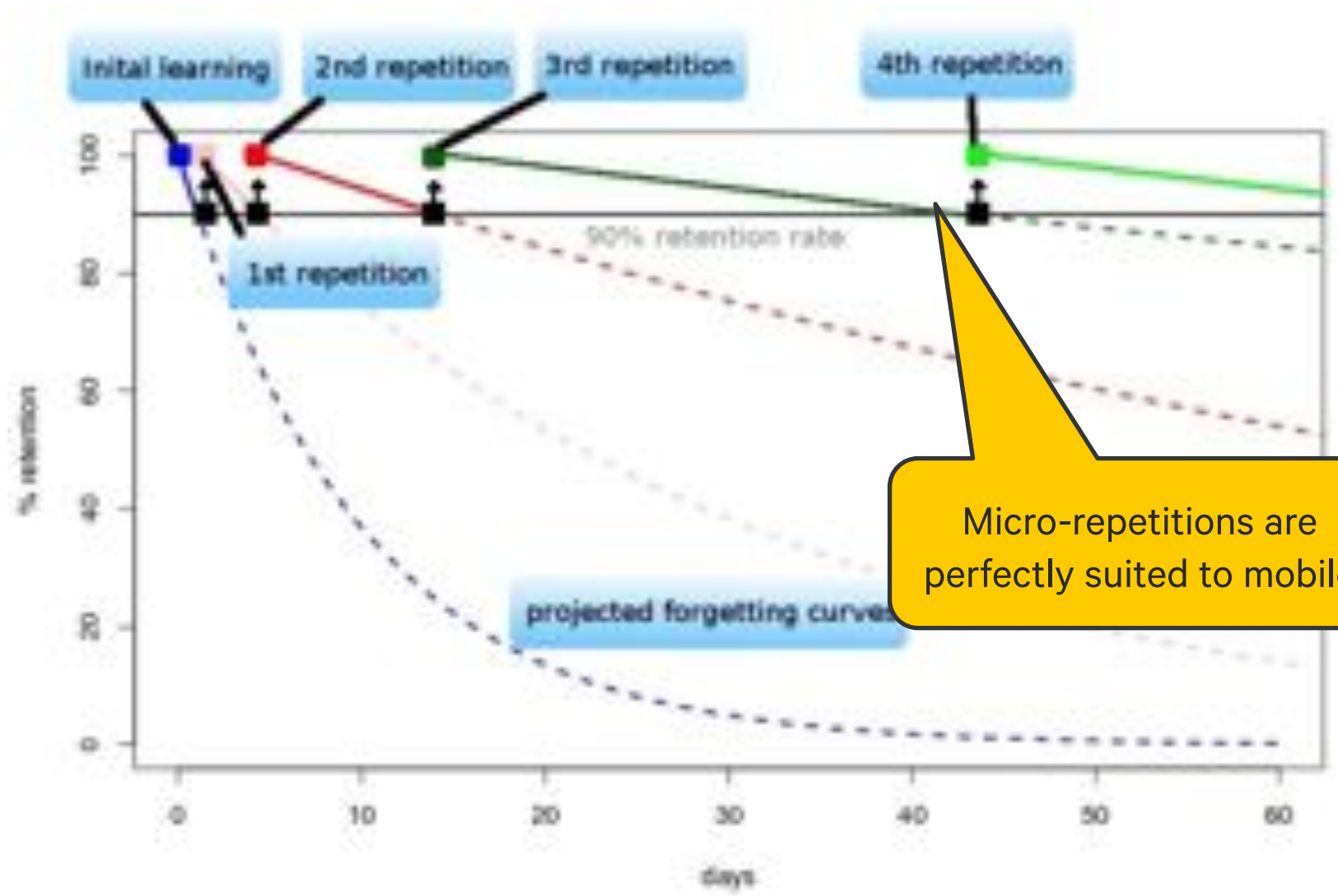
Menu

This talk will present an overview of IC scaling and manufacturing challenges and solutions over the past 50 years, and discuss novel photography solutions that enable transistor scaling to 22nm, 14nm, 11nm, and possibly beyond.

Guru Rami Salem (Senior Staff Engineer, Design Technology Integration, Qualcomm Technologies Canada)

Rami is an expert in the IC manufacturing and yield enhancement field, with numerous publications under his name. Prior to joining Qualcomm, he was a consultant with Mentor Graphics and had a portfolio of customers that include Samsung, GlobalFoundries, Infineon and other high-profile players in the industry.

The Forgetting Curve (and power of repetition)

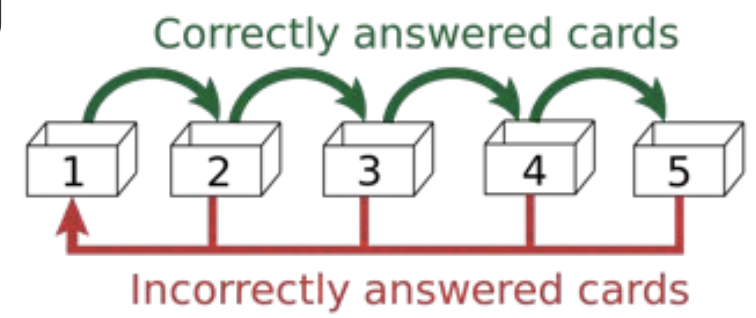


Ebbinghaus

Spaced Repetition

Leitner system

Micro-repetitions are perfectly suited to mobile



Made with: HTML5 on Node.JS

QC Lingo



Hybrid game engine + Leitner memorizing system

tiny.cc/oldelingo

Timeline apps (QMuseum)

Web-based

Embedded Video



Swipable timeline



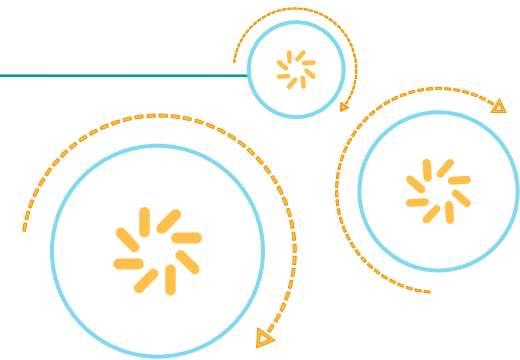
Made with: HTML5, TimelineJS



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

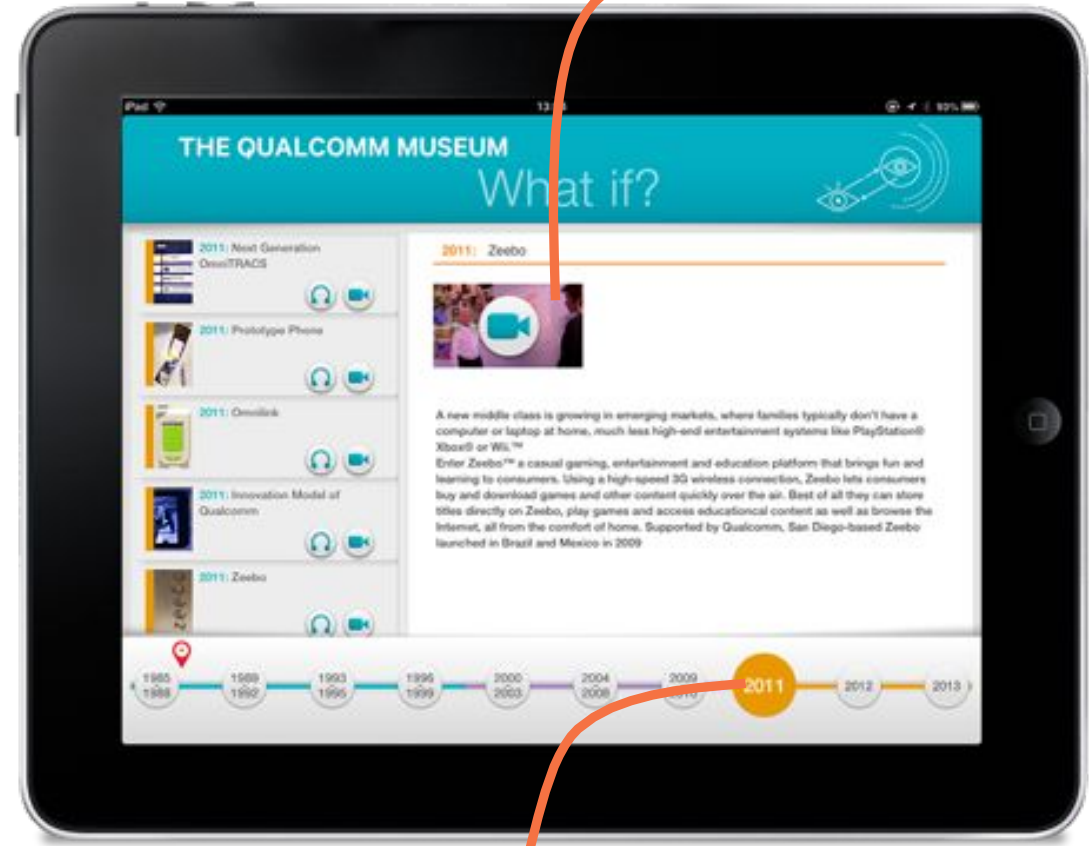


Embedded Video

Swipable timeline



Native app



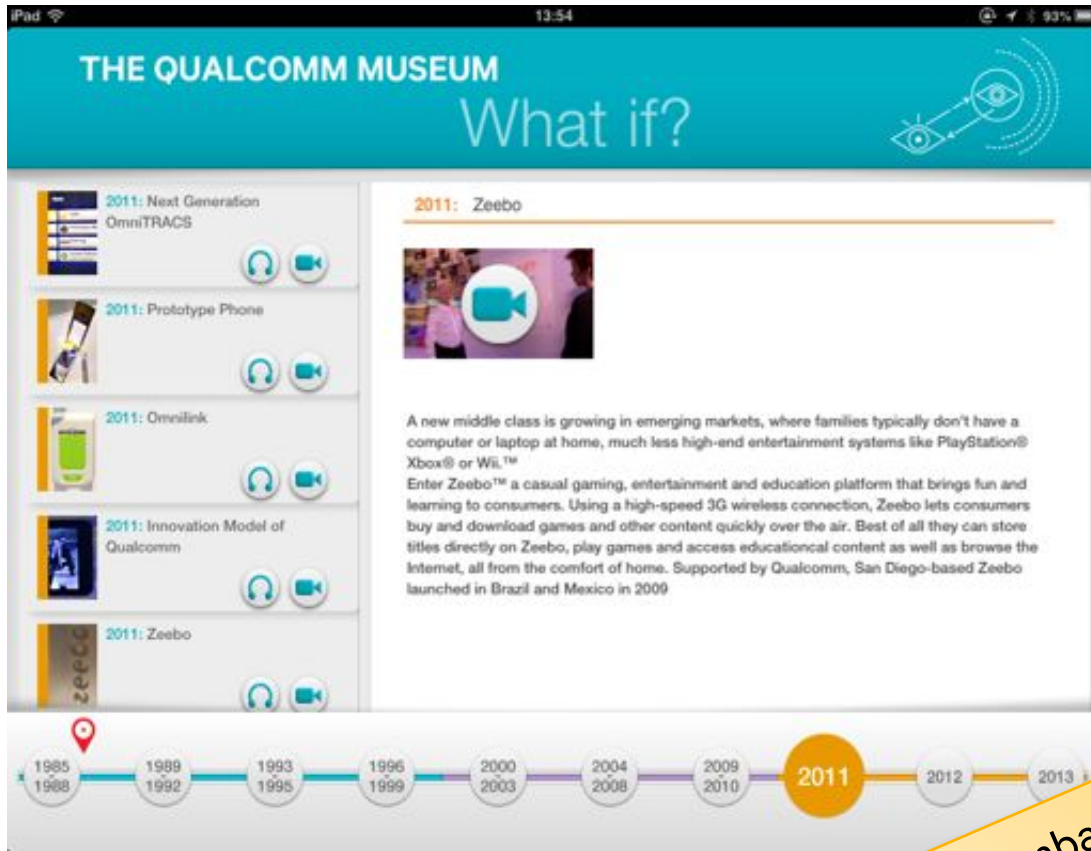
Offline viewing of video possible

Knows your location to push relevant content

Qualcomm Museum Tour



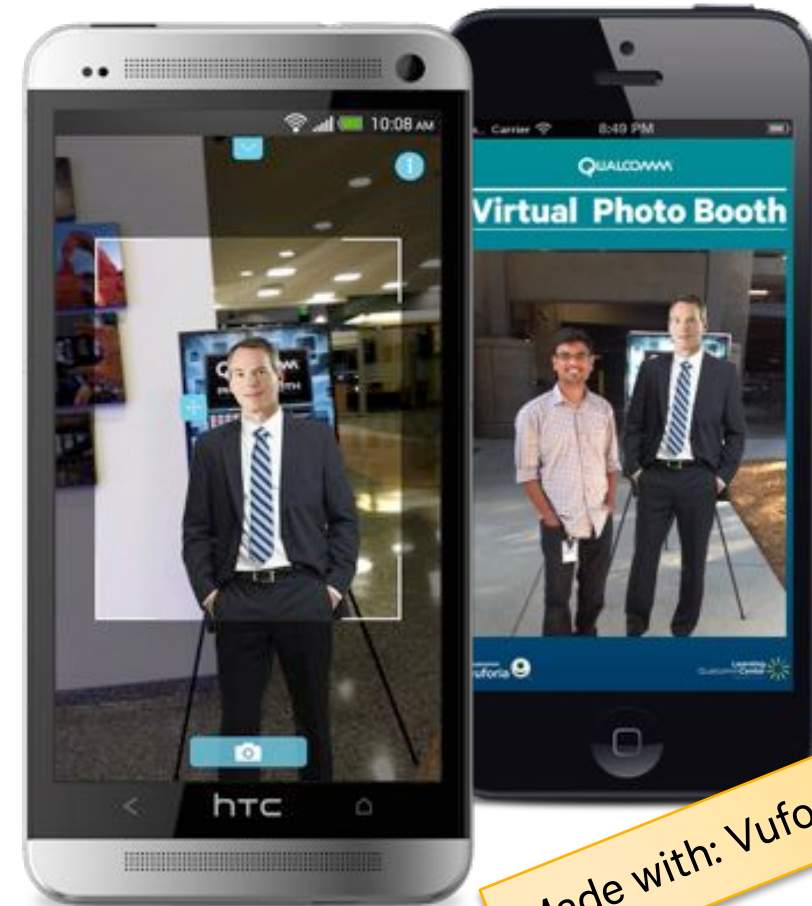
Museum Tour



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



iOS & Android
Google Maps

Compliance apps

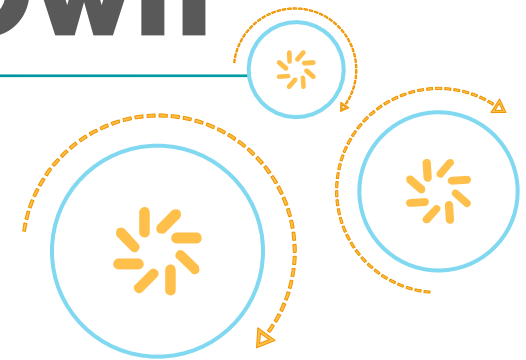
Mobile Foreign Corrupt Practices Act, Preventing Sexual Harassment app

- 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
http://www.invisionapp.com/

Unique Features

- Offers a clean and intuitive interface to create prototypes and includes useful scenarios and gestures for a better interactivity. It allows users to be able to complete the prototype such that they can be tested in case of available mobile devices.
- Enables collaborative review process among a team of designers and allows commenting on the mobile screen itself. This will be a great tool for instantly connected design team and works a lot better than trying to screenshot and send to have meetings with stakeholders.

Pricing Plans

Free	Starter	Professional	Team
\$0/month	\$50/month	\$100/month	\$300/month
1 project	3 projects	unlimited projects	unlimited projects



FLINTO
http://www.flinto.com/

Unique Features

Offers a very straightforward interface that acts like a canvas for building the screens. You can simply launch your screens and connect them to form them into clickable prototypes.

Pricing Plans

\$100/month (or \$120 billed annually)



UXFE
http://uxfe.com/

Unique Features

Provides a simple interface to create colorful prototypes using the library of UI widgets and user stories.

Pricing Plans

Basic Plan	Advanced Plan	Team Plan
\$0/month	\$1.99/month	Starting from \$299/month
10 users	unlimited users (10 annual)	unlimited users (10 annual)
10 MB storage	100 MB storage	500 MB storage
		Collaboration



PROTOJO
http://protojo.net/

Unique Features

- Creates highly interactive prototypes which are quick fluid and the big screen portrait and landscape is flexible and easy to use.
- Enables transitions and interactions that help simulate real-world user input (swipe) and the features can be useful while designing applications with touch or collaboration.

Pricing Plans

Professional	Startup	Agency	Enterprise
\$200/month	\$500/month	\$1000/month	\$2000/month
1 user	up to 2 users	up to 5 users	up to 10 users
3 active projects	10 active projects	15 active projects	25 active projects



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

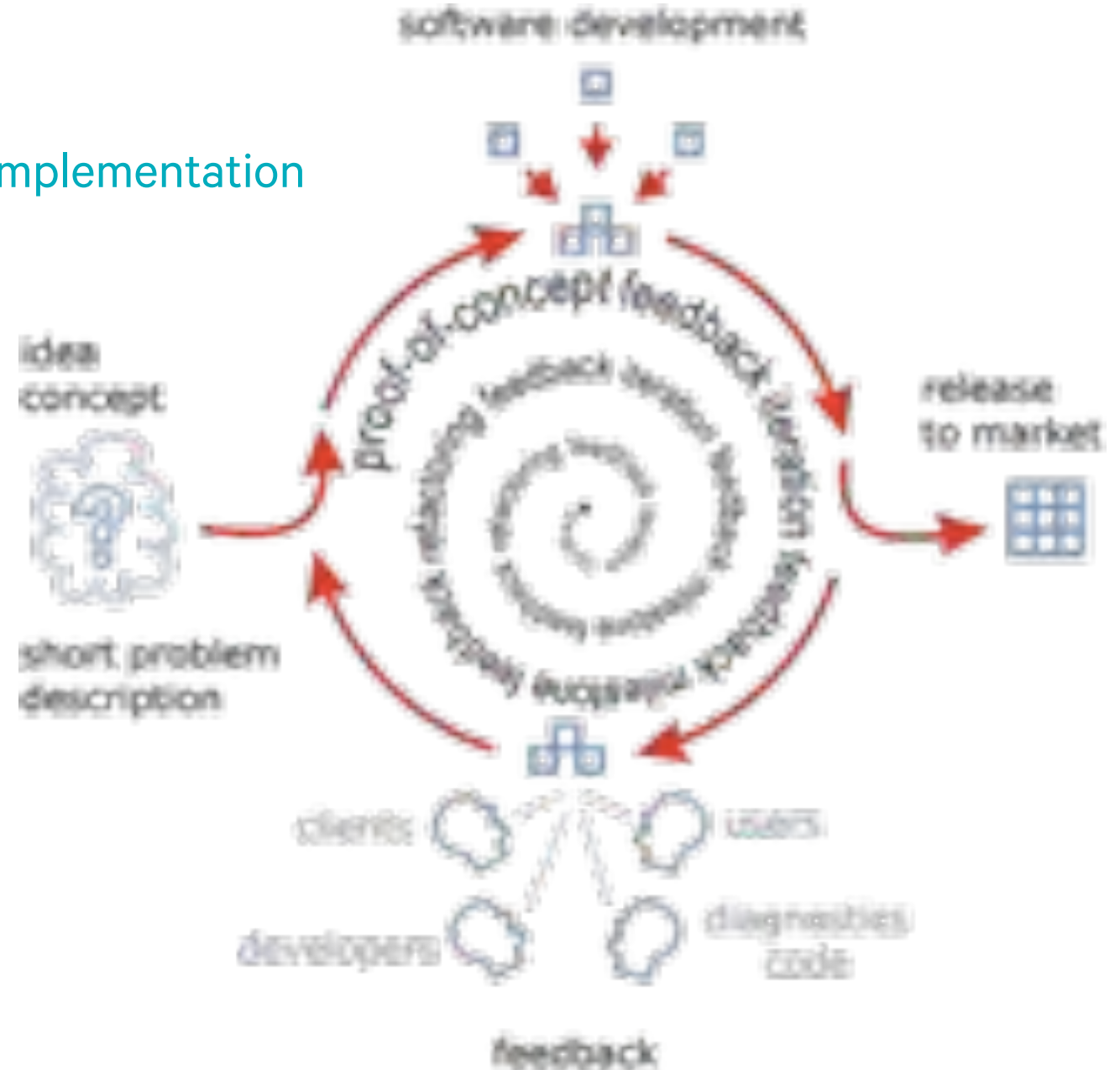
Download our Top 10 list here:
tiny.cc/top10prototools

- > Start Simple
- > **Launch and Learn**
- > Refine
- > Repeat

Be Agile

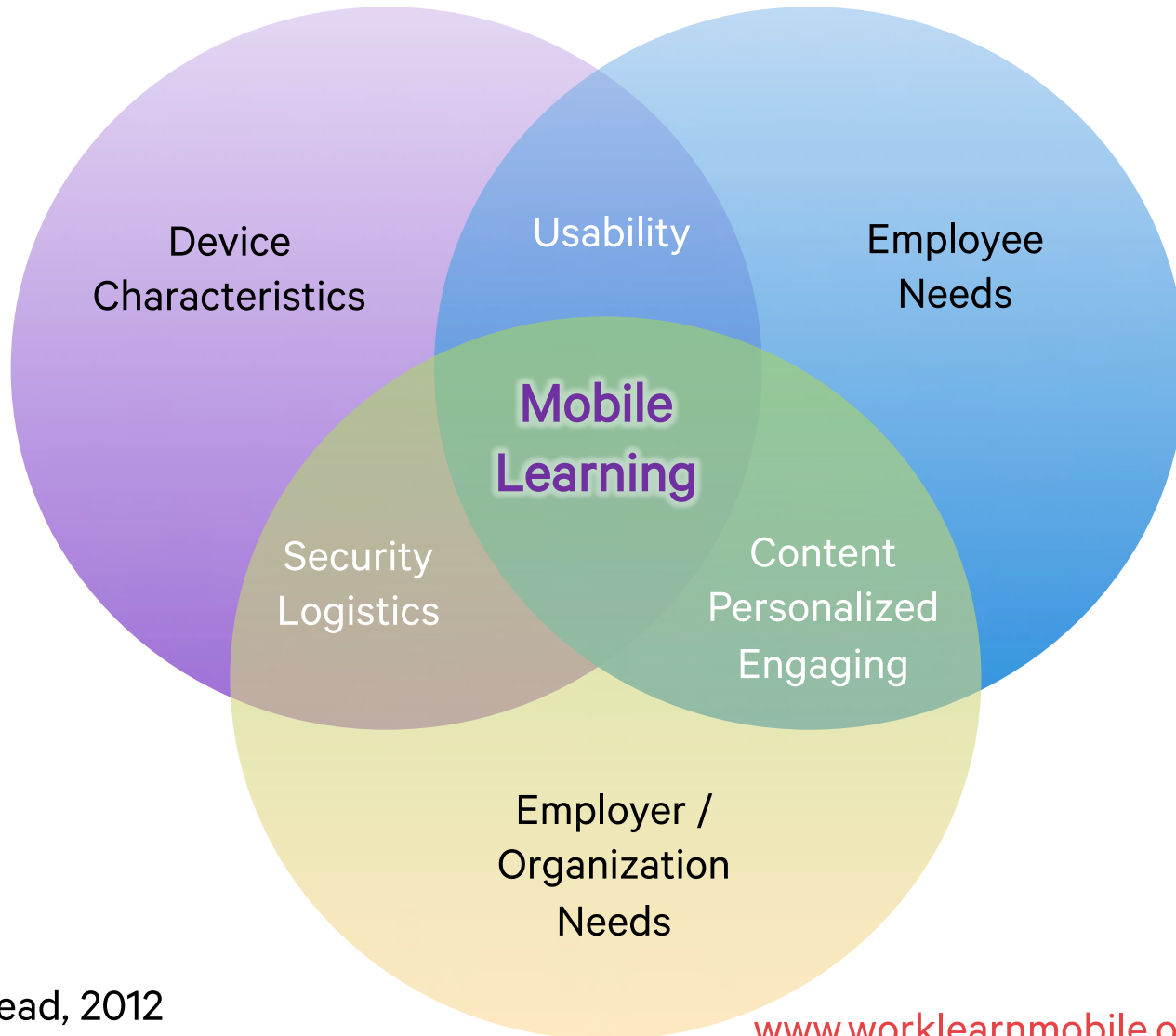
Agile = essential for development AND implementation

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





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

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- Find out more about excellence in workplace mobile learning

WorkLearnMobile.org

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

The image shows a screenshot of the WorkLearnMobile.org website. The page features a navigation bar with 'MOBILE EXPERTS', 'RESOURCES', and 'EVENTS'. A prominent orange banner reads 'MOBILE EXPERTS' with the subtext 'Save your conference budget - we bring the experts, vendors, thought leaders and inventors about...'. Below this, there are several article teasers. One features a graphic of a smartphone with gears and a person icon, titled 'Why we should consider Workplace Learning?' by Amit Garg. Another article is partially visible with the title 'CA...'. A white profile card is overlaid on the right side of the page, featuring a teal circular profile picture of a man with glasses and a goatee. The text on the card reads 'Geoff Stead', 'Sr Director, Qualcomm', and '@geoffstead'. At the bottom of the page, there is a purple footer with text: 'With all the hype about mobile learning, it isn't easy to find out what real employers are really doing. These case studies provide an insight into specific approaches, apps or initiatives that are making a real difference to employees today.'