

Mobile Learning Development for Technical Training Children's Healthcare of Atlanta

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Objectives – Mobile Learning for Technical Training



Platforms

Explain the current Mobile App Development Platforms.

60 min.



Development/ Publishing

Describe the Mobile App Development and Publication Process. Demos

45 min.



Core Skills

List the core skills required to develop Mobile Apps.

15 min.



Possible Apps

Brainstorm possible Mobile Apps for Technical Training. Discuss LMS integration

15 min.



Next Steps

Plan potential next steps.

15 min.



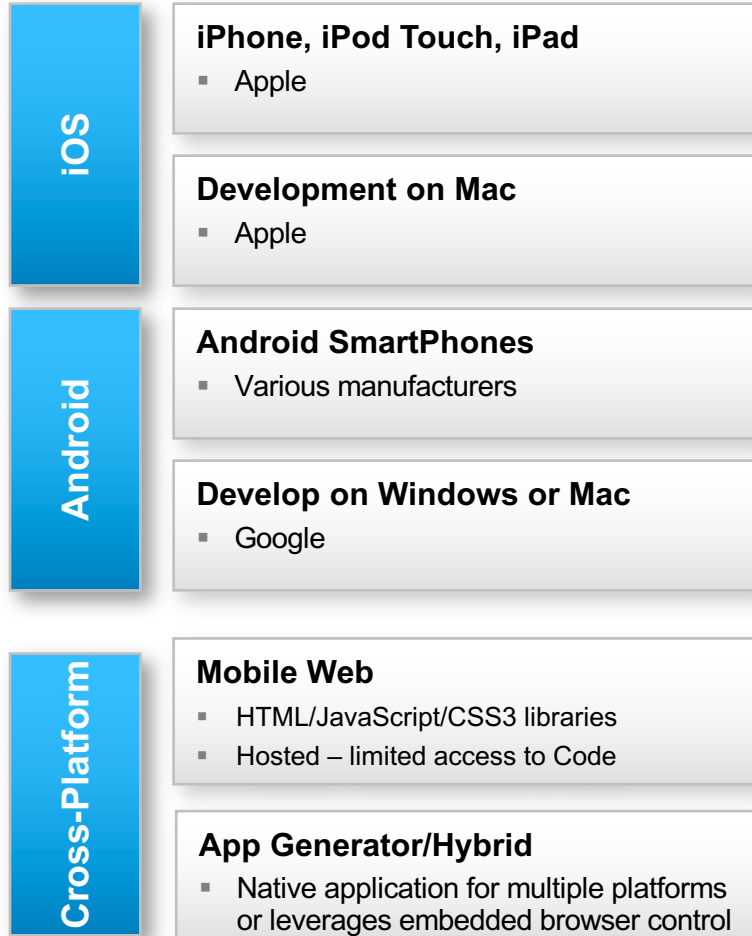
Introductions

Marty Allison
Mark Guerrein
Anthony Griffin
James Gilliam
Amy Bates
Larry Brambrut
Leslie Seymour



Mobile Development Platforms

In General



- **Each type of platform has its pros and cons.**
- Native apps have access to all inherent functionality of the device
- Web-based platforms address multiple devices but lack full functionality
- Hosted solutions provide less programming but offer less control over source
- App Generators support cross-platform devices but are limited by vendor resources



Mobile Development Platforms

iOS

iOS

iPhone, iPod Touch, iPad

- Apple

Development on Mac

- Apple

Android

Android SmartPhones

- Various manufacturers

Develop on Windows or Mac

- Google

Cross-Platform

Mobile Web

- HTML/JavaScript/CSS3 libraries
- Hosted – limited access to Code

App Generator/Hybrid

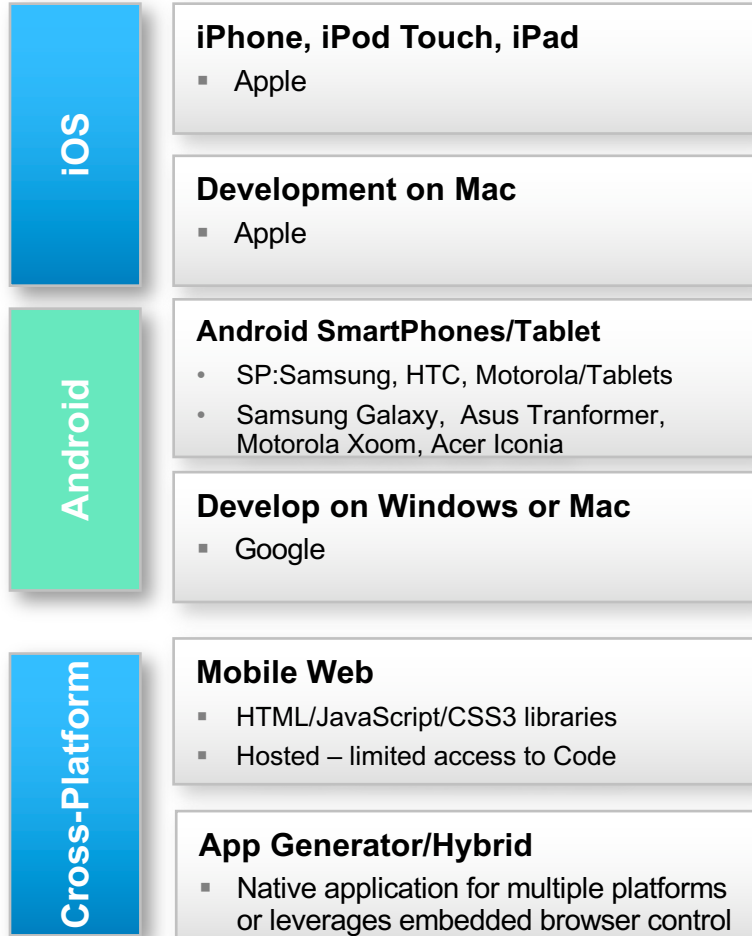
- Native application for multiple platforms or leverages embedded browser control

- Primary language: Objective-C
- IDE: Xcode
- Delivery mechanism: iTunes or Enterprise License
- Devices: iPhone, iPod Touch, iPad
- Costs:
 - Development license: \$99 individual
 - Enterprise license: \$300
 - iTunes: 30% of sales dollars



Mobile Development Platforms

Android

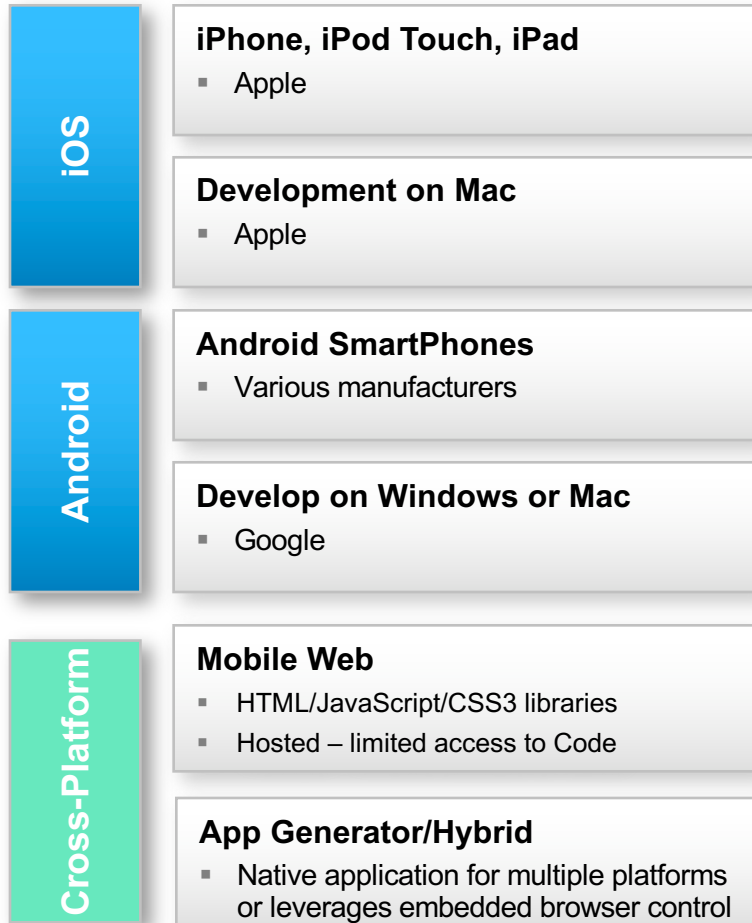


- Primary language: Java
- IDE: Eclipse
- Delivery mechanism: Android Market
- Devices: Android based Smartphones and Tablets
- Costs:
 - Development license: \$25 individual
 - No Enterprise License
 - Android Market: 30% of sales dollars



Mobile Development Platforms

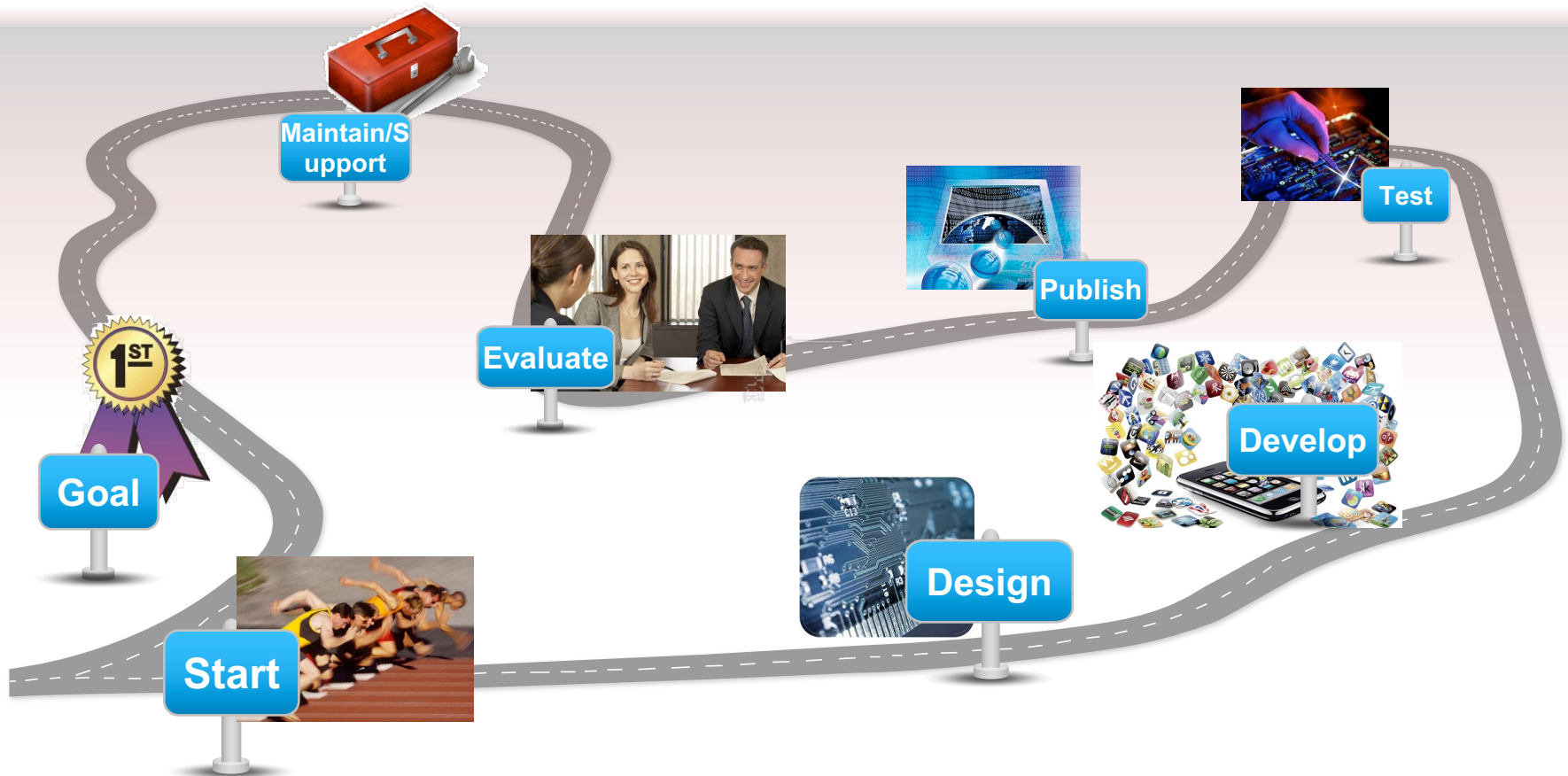
Cross-Platform



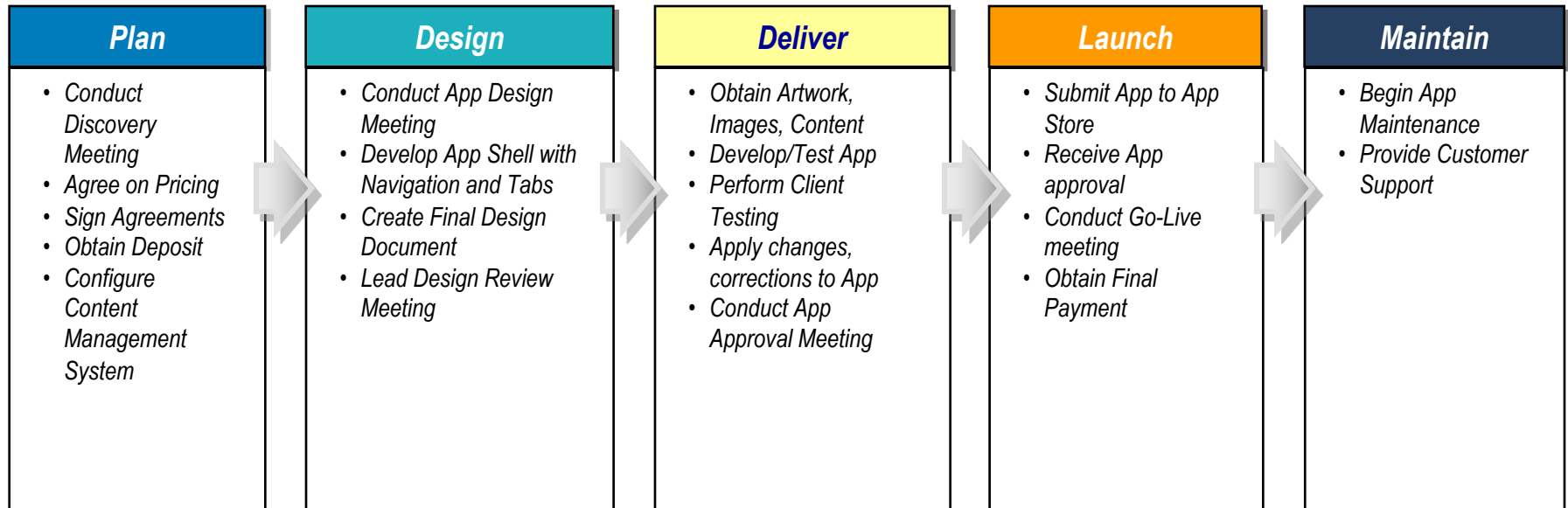
- Languages: HTML5, JavaScript, CSS3
- Mobile Libraries: for example: jQuery Mobile, Sencha
- Hosted: Application Craft
- App Generators/Hybrid: PhoneGap, Titanium
- Cost:
 - jQuery Mobile - Free
 - Sencha/Application Craft – License free, buy support
 - PhoneGap – Open but purchased by Adobe – Build Service
 - Titanium – Buy Support – Individual/Enterprise



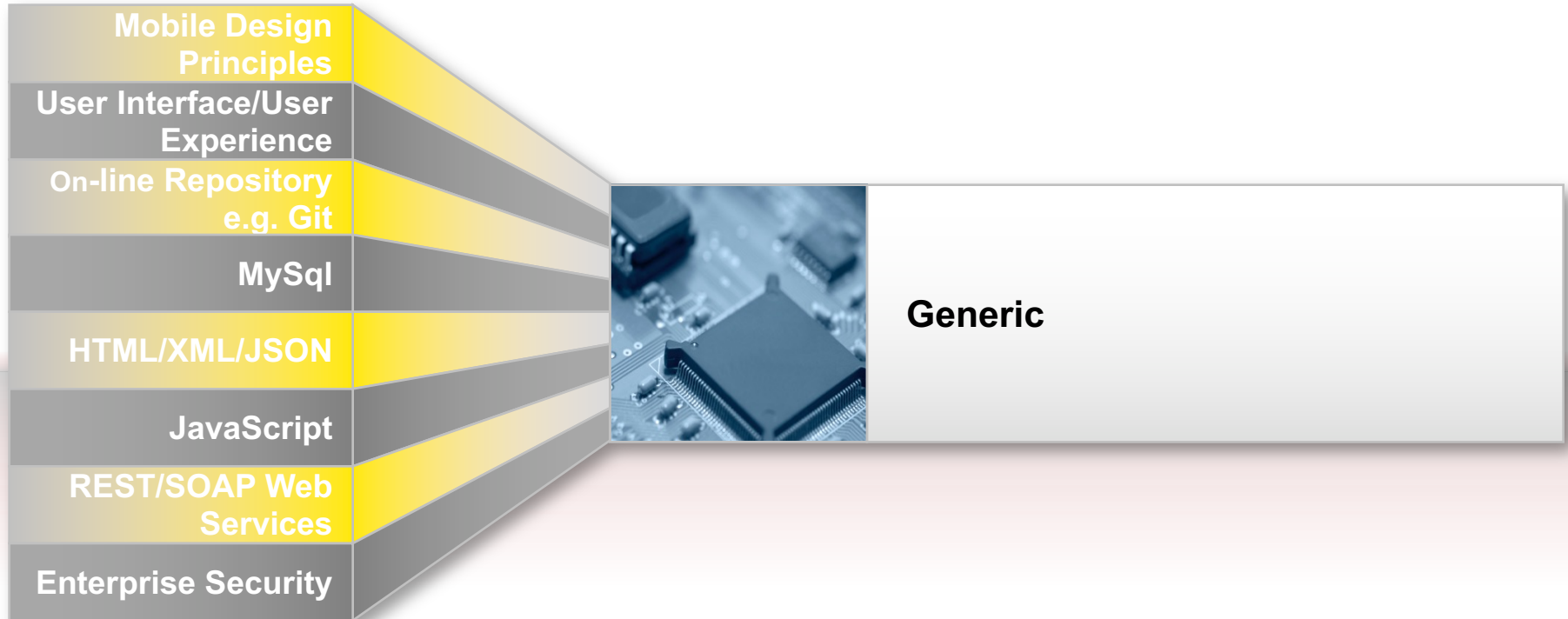
Mobile Development Process and Publishing



Mobile Application Development Process



Generic Mobile Development – Core Skills



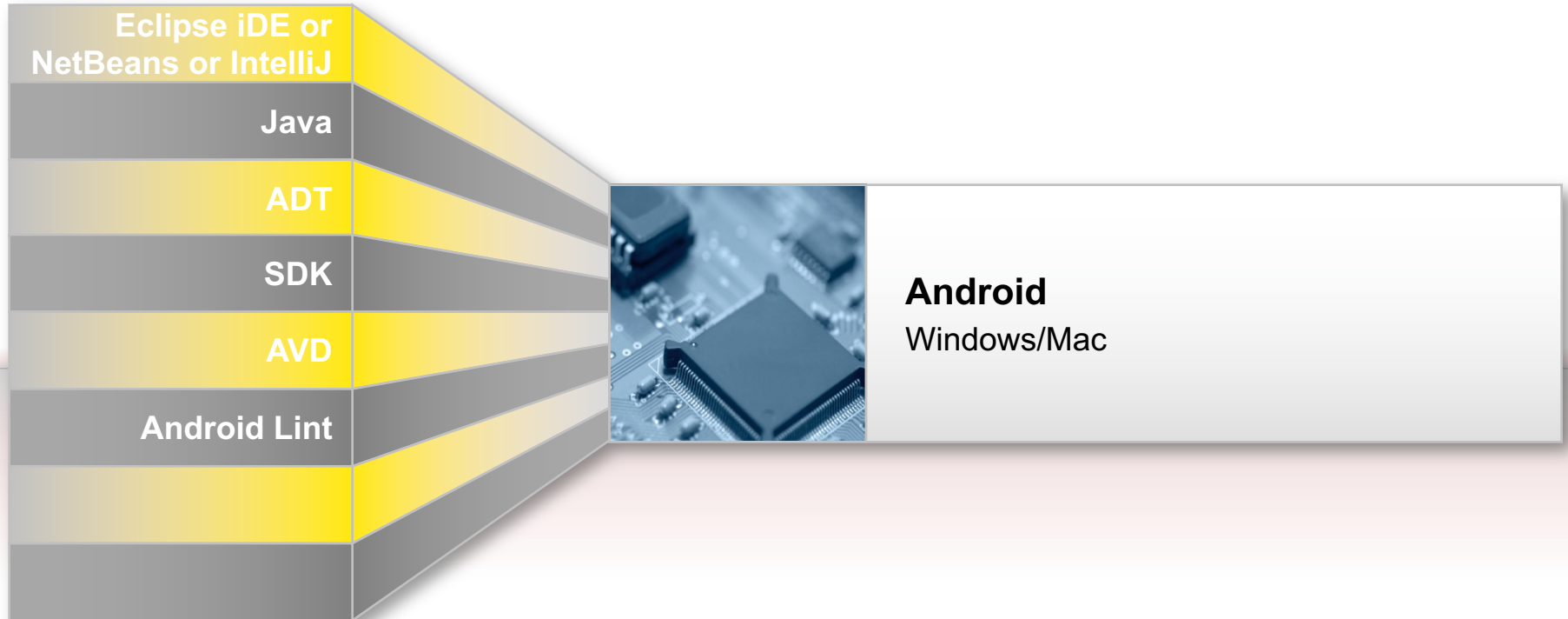
iOS – Core Skills

Develop iOS Apps



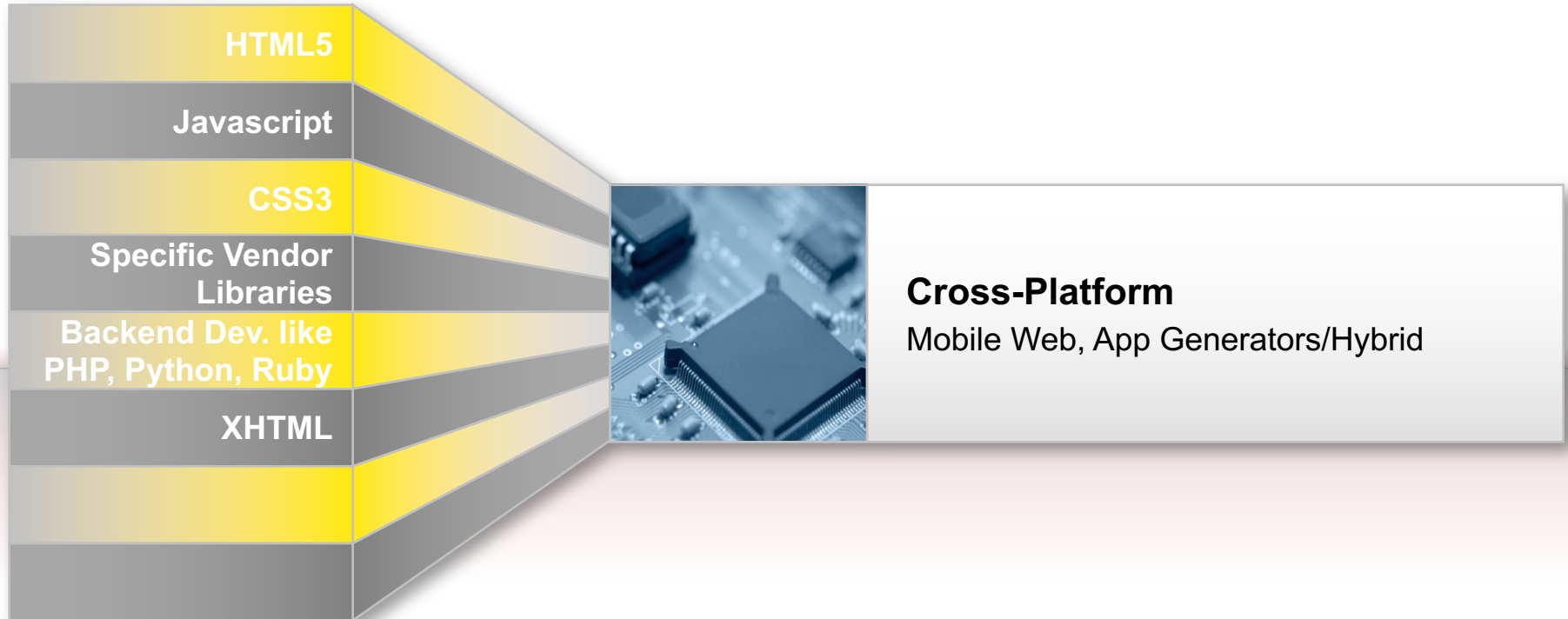
Android – Core Skills

Develop Android Apps



Mobile Cross Platform – Core Skills

Develop Web/Hybrid/App Generator Apps

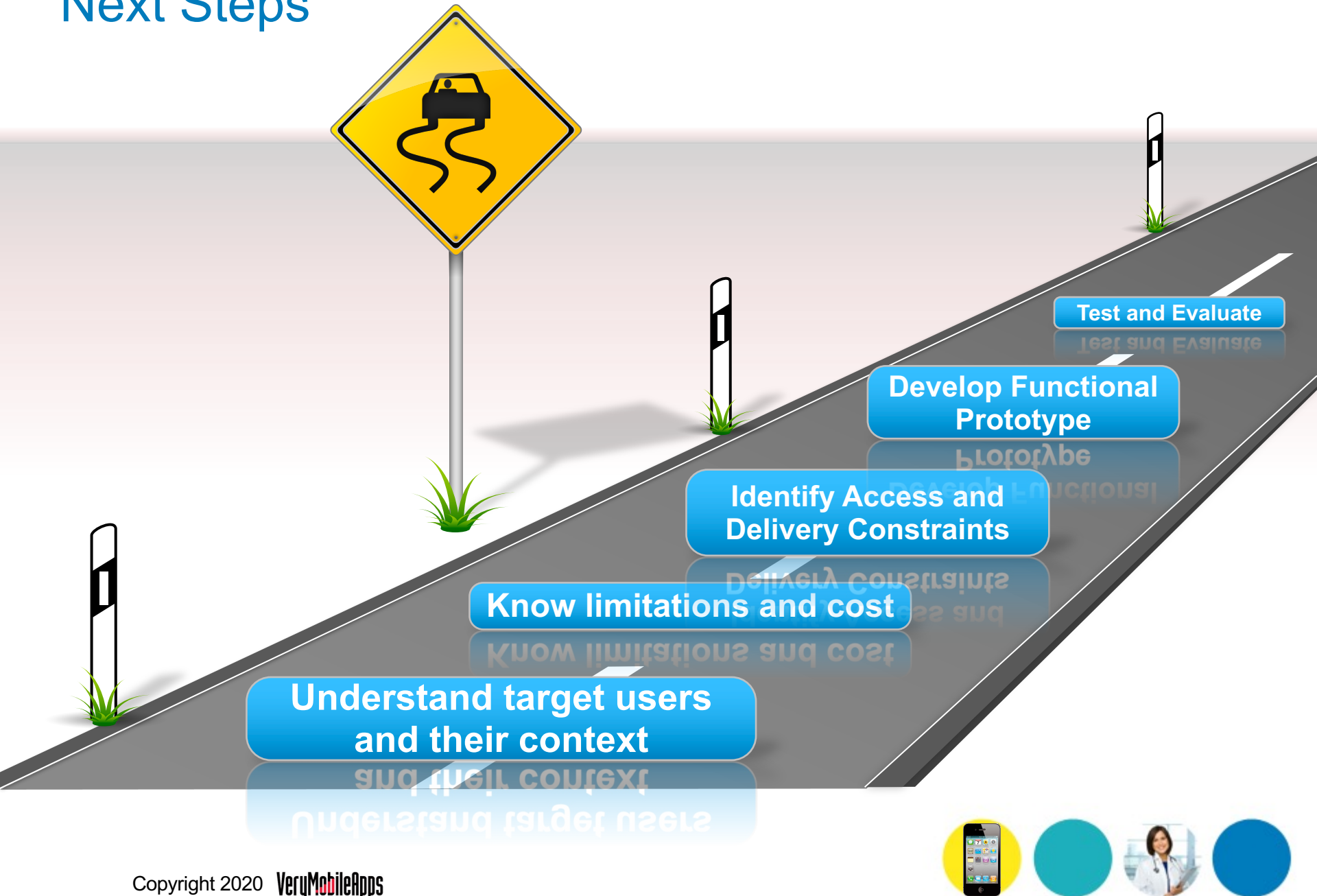


Brainstorming App Ideas

Efficiency, safety, and error reduction initiatives
Investments in back-end systems and Informatics
Mobile CME and Test Preparation
Device purchases by Payers
New professional licensing standards
Medical and healthcare referenceware
User technical proficiency and expectations
Rise in number of training initiatives
Ubiquitous smartphones
EMR, eRX, CPOE, ICU staffing
Productivity and Outcome measurements
Connected devices in use by consumers, students, patients, and clinical workers
Federal Mandates
Device-embedded learning
Demand for new product training
Compliance, regulations, privacy, security
Handheld clinical decision support
Collaborative patient education
Shrinking clinical workforce and connected aging population
Remote mobile patient monitoring



Next Steps



Glossary

- ADT – Android Development ToolKit
- AVD - Android Virtual Device
- Eclipse - The Eclipse Platform is a multi-language software development environment comprising an integrated development environment (IDE) and an extensible plug-in system. It is written mostly in Java.
- IDE – Integrated Development Environment
- JavaScript - Client-side scripting language for web pages
- jQuery Mobile - A unified, HTML5-based user interface system for all popular mobile device platforms.
- SDK – Software Development Kit
- Xcode – Apple IDE for Mac and iOS



Development References

- Developer Apple: <https://developer.apple.com/>
- App Store - iTunes: <http://www.apple.com/itunes/>
- Android Market: <https://market.android.com/apps>
- Developer Android: <http://developer.android.com/index.html>
- Android Open Source Project: <http://source.android.com/>
- jQuery Mobile: <http://jquerymobile.com/>



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- The following products noted in this document are the respective copyrights of the associated companies.
- Apple, iTunes, iOS, iPad, iPhone
- Google, Android, Android Marketplace
- Sencha
- Application Craft
- PhoneGap - Adobe
- Titanium – Appcelerator
- Samsung/Samsung Galaxy, HTC, Asus Transformer, Motorola Xoom, Acer Iconia
- StatCounter



Mobile Learning Definition

The acquisition of any knowledge and skill through the use of mobile technology at anytime, in context of your environment, your location, and your situation.



Mobile Platforms – Market Share

