

research: technical implemenation

topic: digital publication of the annually c/kompass information brochure
on iPhone/iPod touch with the target to have an advantage over the printed version

possible solutions:

- a simple PDF
- ePub
- web app
- native app
- converting a web app to a native app

PDF

- Portable Document Format
- created with InDesign, QuarkXPress, PageMaker or even with Word
- can be opened with eBook readers like iBooks or Stanza

PROS ease of creation, depending on target a easy and sufficient way to create a publication for a mobile device

CONS no utilization of capabilities of mobile device, less interaction, less fun

ePub

- electronic publishing
- free and open eBook standard
- can be opened with eBook readers like iBooks or Stanza

PROS ease of creation

CONS nearly no utilization of capabilities of mobile device

WebApp

- web application
- application accessed over network such as Internet or Intranet
- using HTML5, CSS, JavaScript, jQuery, jQTouch

PROS ease of development, cross-device compatibility,
no AppStore approval needed, easy publishing/updates

CONS only a few APIs for device features (hardware access) available in JS,
no AppStore, hard to sell your app

HTML5
- next HTML standard
- currently under development
- new features (offline cache, local
and session storage, client-side
database)

CSS (Cascading Style Sheets)
- style sheet language
- to separate content and design

JavaScript or JS
- scripting language
- to enhance UI, dynamic websites

jQuery
- cross-browser JavaScript library
- free and open source software

jQTouch
- open source jQuery plugin
- automatic navigation,
animations, themes

native App

- programmed in Objective-C
- using XCode and Cocoa Touch
- download via AppStore, then offline access
- Apple Developer Account (free signup)
- iPhone Developer Program Membership (\$99 per year)

PROS works offline, large audience via AppStore (distribution, sales)

CONS good programming skills required, expenditures,
AppStore screening process (complicated and slow publishing/updates)

Objective-C or ObjC

- object-oriented programming language
- Smalltalk-style messaging to C programming language
- used primarily in Mac OS X and iOS

Xcode

- development environment
- Mac OS X installation dvd contains Apple Developer Tools

Interface Builder

- application to construct GUI

Cocoa Touch

- framework for building iOS apps
- object-oriented API (application programming interface)

PhoneGap: Convert a WebApp into a native App

- open source development framework for building cross-platform mobile apps
- container for WebApp
- creating a native App with WebApp in it
- download via AppStore (Android Market etc.), then offline access
- provides JS access to otherwise inaccessible device APIs
(accelerometer, camera, contacts, location, sound, telephony, orientation, vibration)

PROS ease of development and still take advantage of core features in iPhone/iPod touch, cross-device compatibility (WebApp can be converted to various platforms)

CONS problems with to complex functionalities

Weblinks

<http://jquery.com/>

<http://jqtouch.com/>

<http://phonegap.com/>

<http://mobile.tutsplus.com/>

http://www.infobliss.at/objc/obc001_index.htm

<http://www.otierney.net/objective-c.html>

<http://developer.apple.com/iphone>

<http://developer.apple.com/programs/which-program/>

Literature

ISBN-13: 978-3645600521 » HTML5-Apps für iPhone und Android | Franzis Verlag, 2010

ISBN-13: 978-3897219519 » Entwickeln mit dem iPhone SDK | O'Reilly, 2010

ISBN-13: 978-0596159771 » jQuery Cookbook | O'Reilly, 2010

ISBN-13: 978-1935182320 » jQuery in Action | Manning, 2009

PAGE 07.10 S.80-83

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