# Mobile Media & Urban Spaces

## Bauhaus-Universität Weimar

# 04. Mobile Guidelines

SS2013 Joatan Preis Dutra Faculty of Media Chair of Interface Design joatan.preis.dutra@uni-weimar.de http://www.uni-weimar.de/medien/wiki/IFD:Mobile\_Media\_and\_Urban\_Spaces\_WS13





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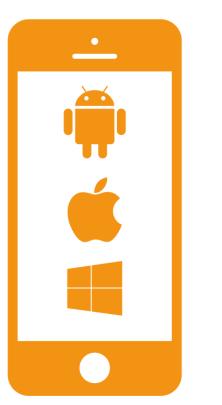
# Platforms

# **Platforms & Options**

Native



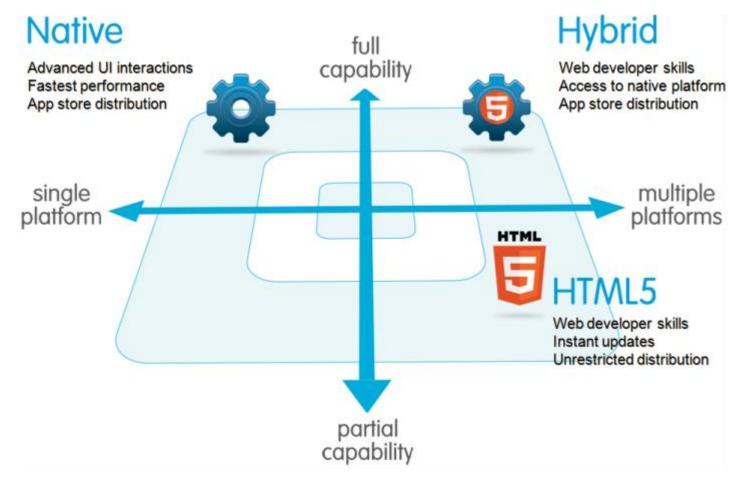






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# **Platforms & Options**



Source: http://wiki.developerforce.com/page/Native,\_HTML5,\_or\_Hybrid:\_Understanding\_Your\_Mobile\_Application\_Development\_Options

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# **Platforms & Options**

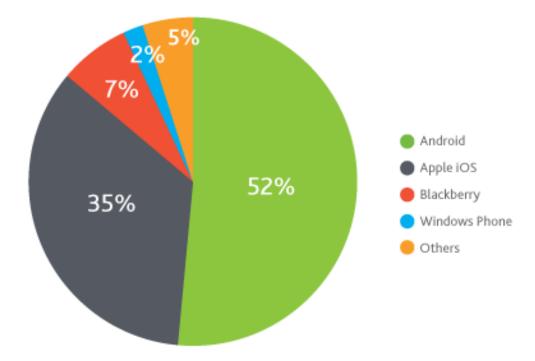
	Native	HTML5	Hybrid
App Features			·
Graphics	Native APIs	HTML, Canvas, SVG	HTML, Canvas, SVG
Performance	Fast	Slow	Slow
Native look and feel	Native	Emulated	Emulated
Distribution	Appstore	Web	Appstore
Device Access			
Camera	Yes	No	Yes
Notifications	Yes	No	Yes
Contacts, calendar	Yes	No	Yes
Offline storage	Secure file storage	Shared SQL	Secure file system, shared SQL
Geolocation	Yes	Yes	Yes
Gestures			
Swipe	Yes	Yes	Yes
Pinch, spread	Yes	No	Yes
Connectivity	Online and offline	Mostly online	Online and offline
Development skills	ObjectiveC, Java	HTML5, CSS, Javascript	HTML5, CSS, Javascript

Source: http://wiki.developerforce.com/page/Native,\_HTML5,\_or\_Hybrid:\_Understanding\_Your\_Mobile\_Application\_Development\_Options

# iOS & Android

### Top U.S. Smartphone Operating Systems by Market Share

Q3 2012, Nielsen Mobile Insights



Read as: During Q3 2012, 52% of smartphone owners had a handset that runs on the Android operating system

Source: Nielsen

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nielsen

Source: http://www.nielsen.com/us/en/newswire/2012/nielsen-tops-of-2012-digital.html

# iOS & Android (December 2010 – September 2012)

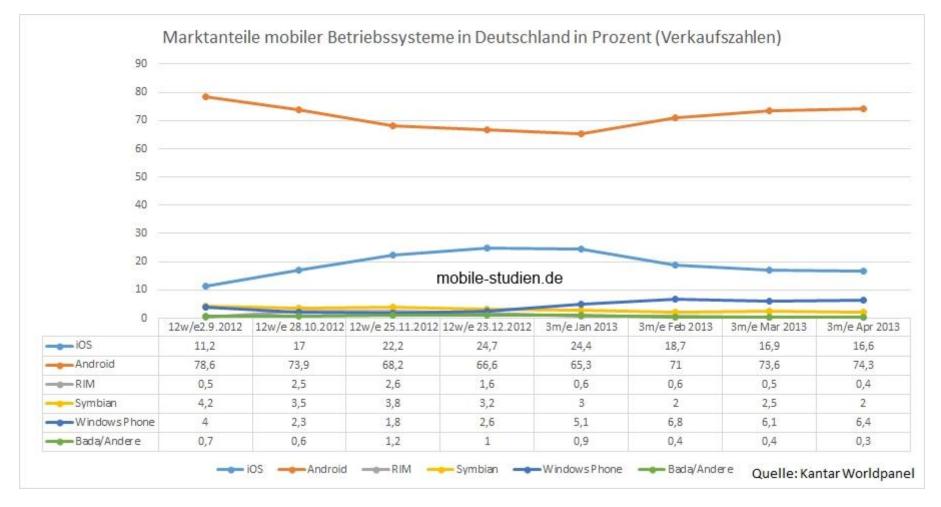
### Smartphone-Betriebssysteme in Deutschland

Anteile der bevorzugt eingesetzten Systeme in Prozent 60,0 50,1 50,0 Android iOS 40,0 Symbian Windows 30,0 Mobile/Phone RIM 20,9 20,0 17,6 10,0 5,8 2,4 0,0 Jul-2011 Nov-2011 März 12 April 12 Mai 12 Juni 12 Juli 12 Dec-2010 Jan-2011 Feb-2011 Mar-2011 Apr-2011 Jun-2011 Januar 12 Februar 12 August 12 September 12 Vay-2011 Aug-2011 Sep-2011 Od-2011 Dec-2011 Daten: Comscore

Smartphone OS market in Germany (Schmidt, 2012)

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# iOS & Android (September 2012 – April 2013)

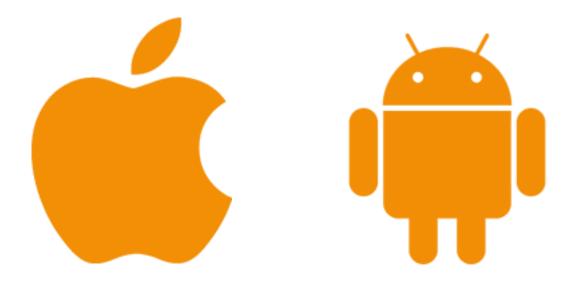


("Kantar: Windows Phone-Wachstum geht weiter - mobile-studien.de," n.d.)

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# iOS & Android

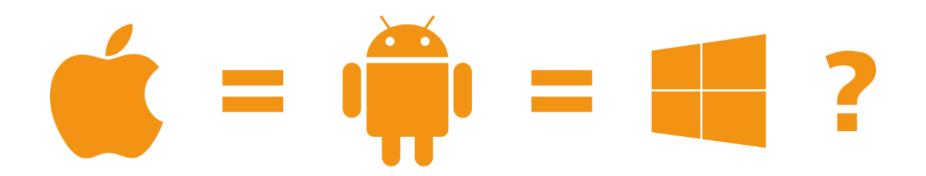
## Two most popular mobile platforms



# Guidelines

### **Official Resources**

# Guidelines

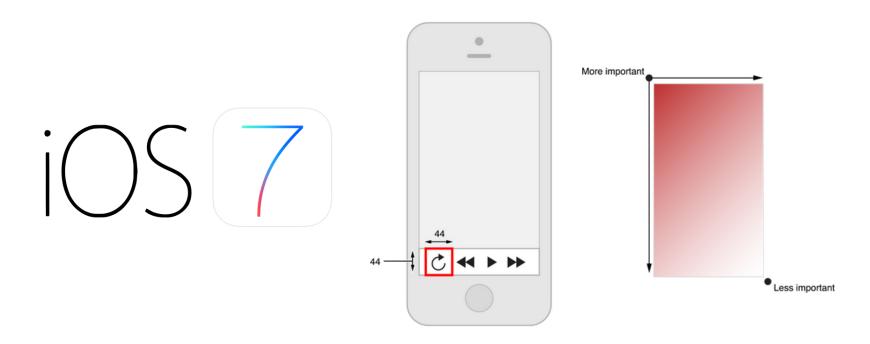


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# Official Design Guidelines: iOS

## iOS 7 Human Interface Guidelines

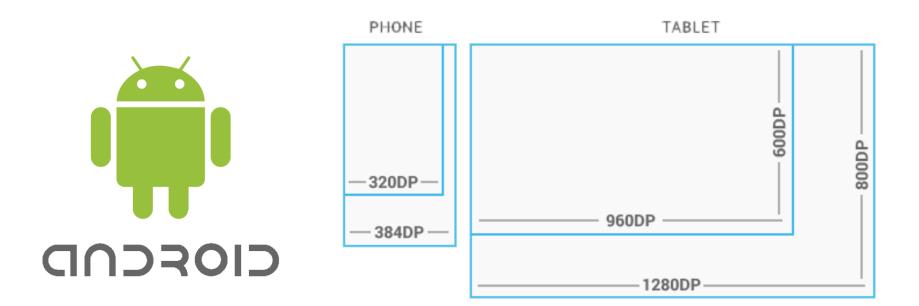
<u>https://developer.apple.com/library/ios/documentation/userexperience/conceptual/mobilehig/</u>



# Official Design Guidelines: iOS

## **Design | Android Developers**

<u>http://developer.android.com/design/index.html</u>



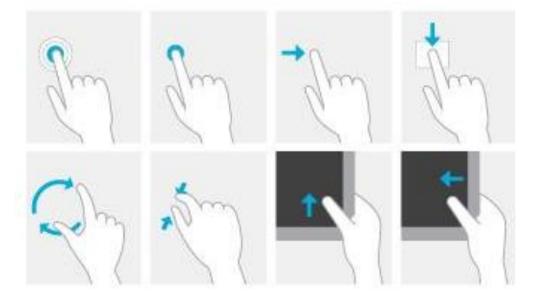
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# **Official Design Guidelines: Windows**

## **Windows Phone Dev Center**

<u>http://developer.windowsphone.com/en-us/design</u>

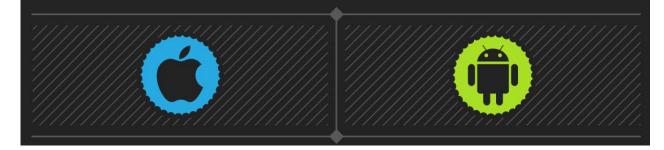




# iOS & Android: Design Guidelines



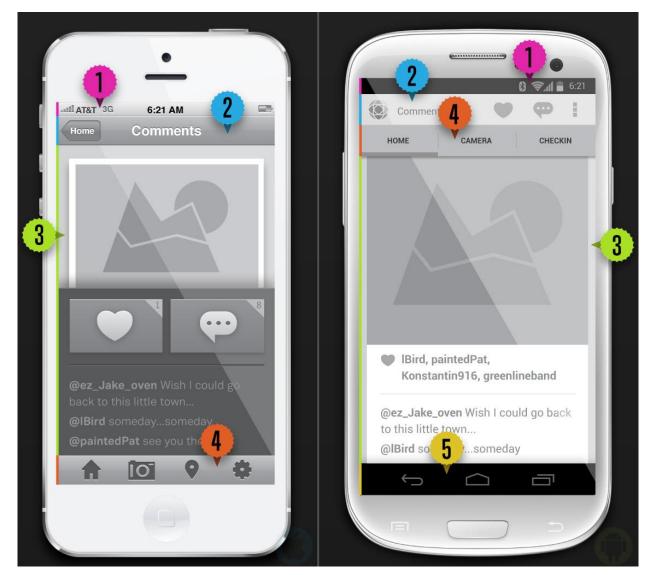
Your reference for designing apps for the two most popular mobile platforms



Retrieved and Modified from: (McKibben, n.d.), originally published in 10<sup>th</sup> May 2013.

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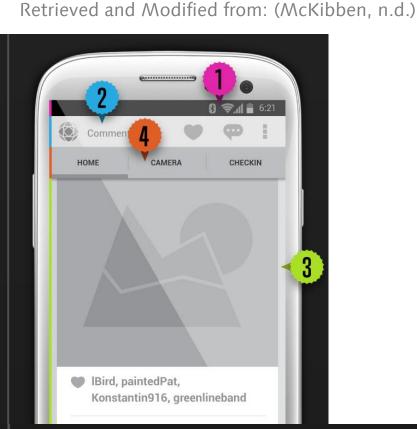


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### iOS & Android: Design Guidelines -



## **#1** STATUS BAR



## **#1** STATUS BAR

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### iOS & Android: Design Guidelines -

ALL AT&T 3G 6:21 AM and its Home Comments

## **#2** NAVIGATION BAR

### Things to note



Retrieved and Modified from: (McKibben, n.d.)

## **#2** MAIN ACTION BAR

Contains

### Things to note

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### iOS & Android: Design Guidelines



## **#3** CONTENT DISPLAY



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## **#3** CONTENT DISPLAY

### Contains

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### iOS & Android: Design Guidelines

Home Comments

## **#4** TAB BAR / TOOLBAR

### Contains

Tab style navigation or progress bar, activity indicator and/or other controls

### Things to note

Tab bars are used as a main source of navigation and as such should be present on every screen (excluding some edge cases). Toolbars are only used when your application requires the user to edit the app's content view.





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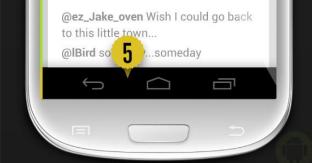
### **#4** ACTION BAR TABS

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**Contains** Tab style navigation

### Things to note

You can choose between fixed and scrollable tabs for your action bar. Fixed allows the user to see all options at a glance while scrollable can support more views.



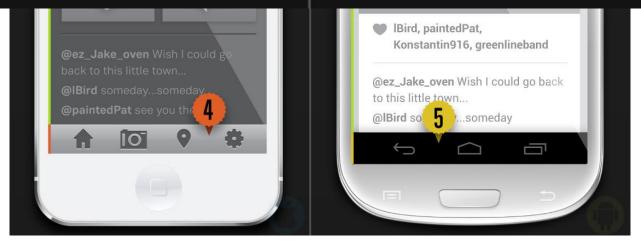
### iOS & Android: Design Guidelines - Retrieved and Modified from: (McKibben, n.d.)

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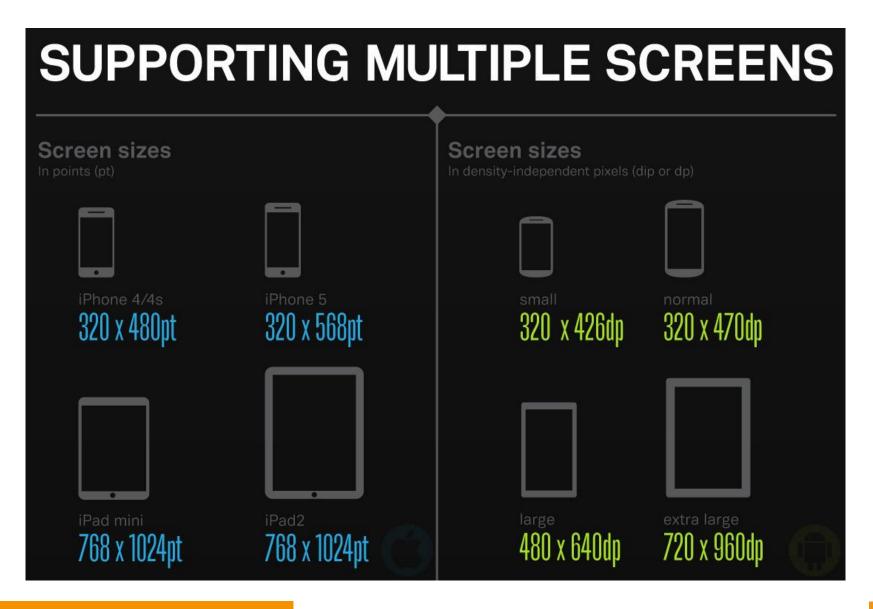




### Contains



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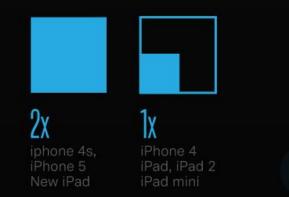
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	ICON	SIZES	
Interface icons Toolbar/Nav Bar 20 x 20px Tab Bar 30 x 30px * for iOS 6		Interface icons Action Bar 24 x 24dp Content Display 12 x 12dp	
App icons		App icons	
App store <b>512 x 512px</b> App icon and	Spotlight search <b>29 X 29pX</b>	Google Play <b>512 x 512px</b>	Launcher icon 48 x 48dp
web clip icon 57 x 57px			

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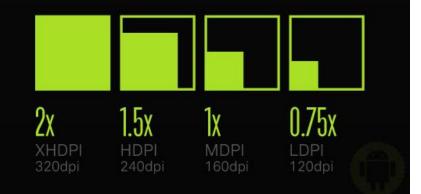
### **Retina support**

size and then scale down to the regular size.

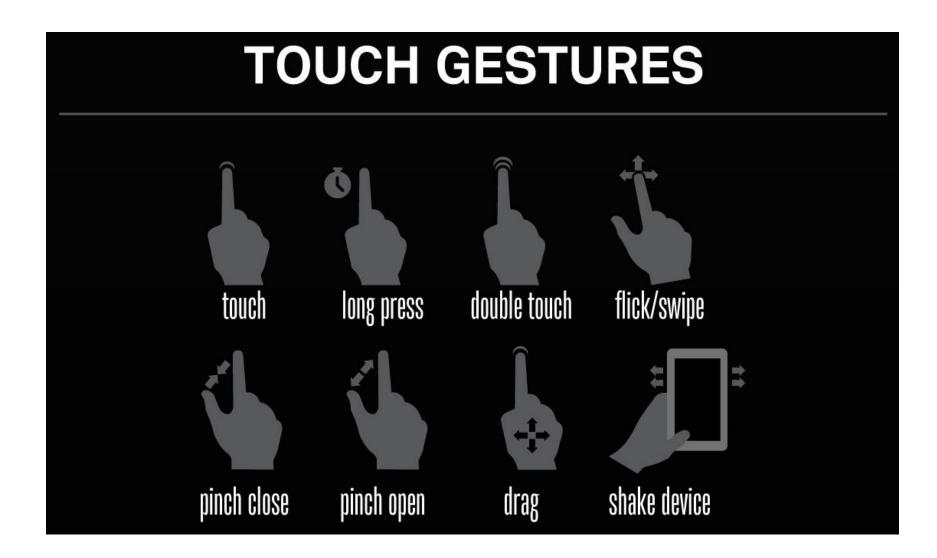


### Variable screen density support

on it, Android groups them into four buckets LDPI, MDPI, HDPI, and XHDPI. The sizes listed on this doc support the MDPI



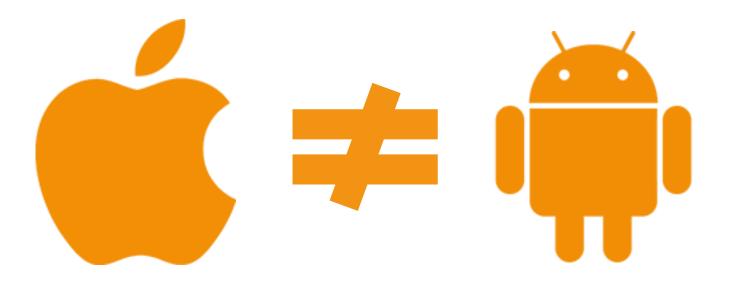
iOS & Android: Design Guidelines - Retrieved and Modified from: (McKibben, n.d.)



# iOS & Android Comparison

**Differences and Similarities** 

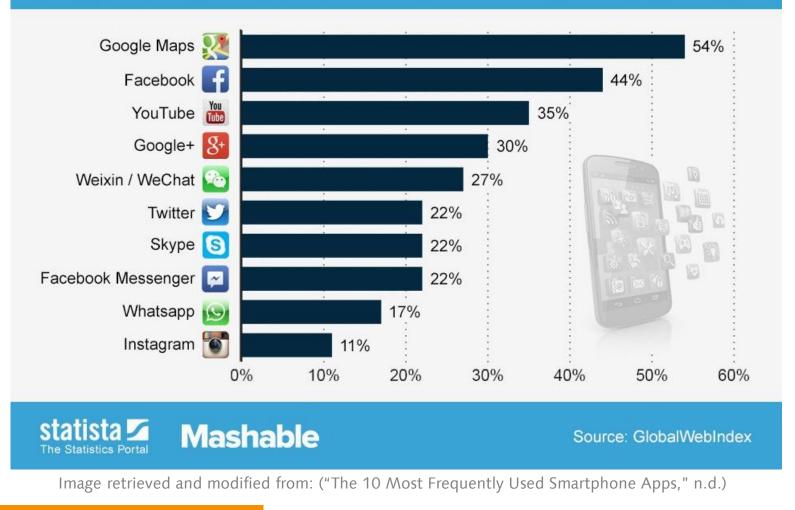
# iOS & Android: Differences



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# Top 10 Most Used Smartphone Apps

% of global smartphone users who have used the app in the past month (Q2 2013)



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# iOS & Android: Examples & Differences

Examples retrieved at 20<sup>th</sup> November 2013, using:

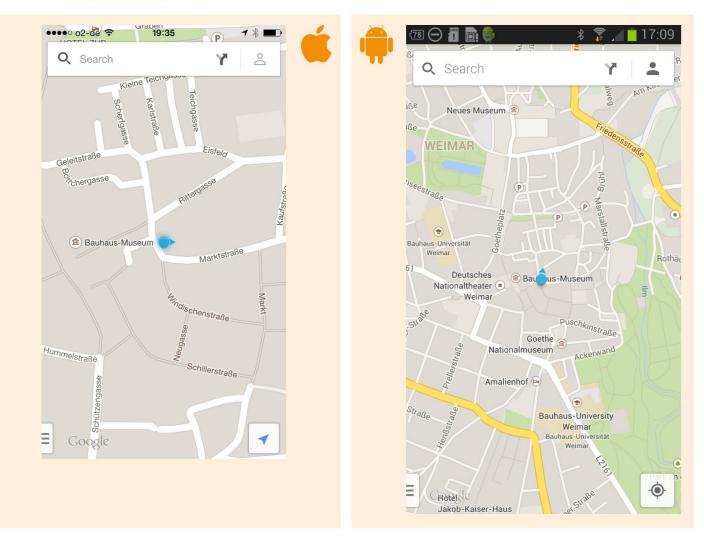
- iPhone 5c
  - iOS 7.0.4
  - 640 × 1136 pixels
  - **4**"
- Samsung Galaxy S3
  - Android 4.1.2
  - 720 x 1280 pixels
  - 4.8





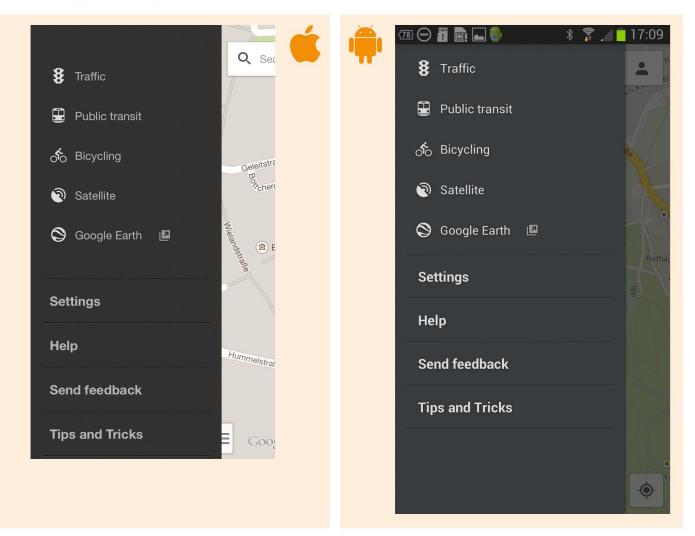






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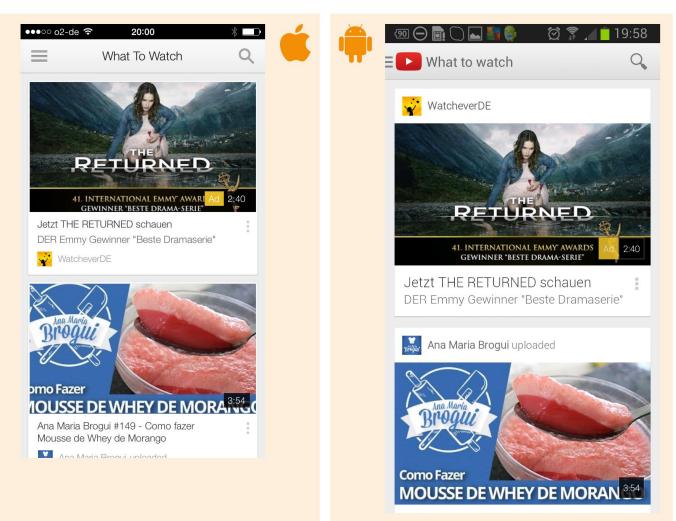


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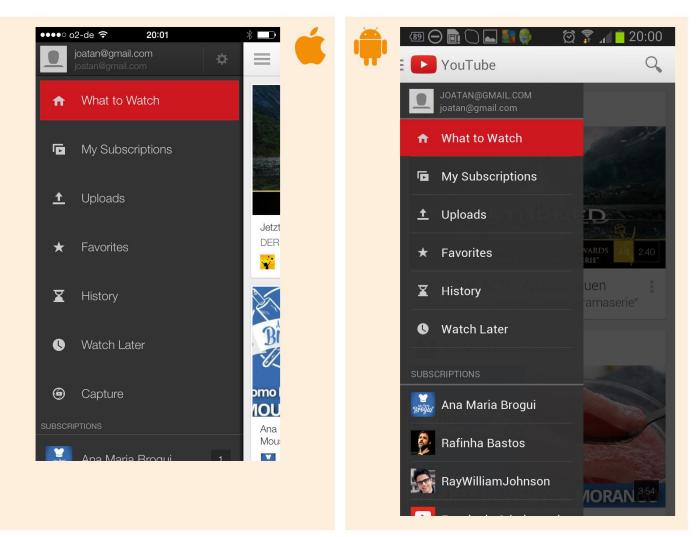


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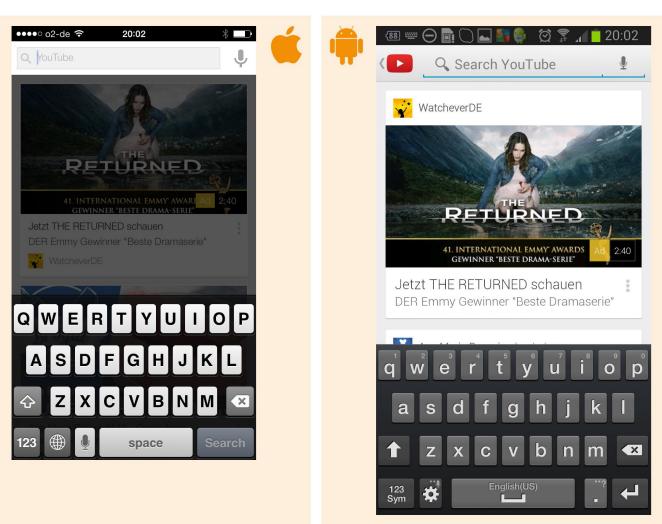
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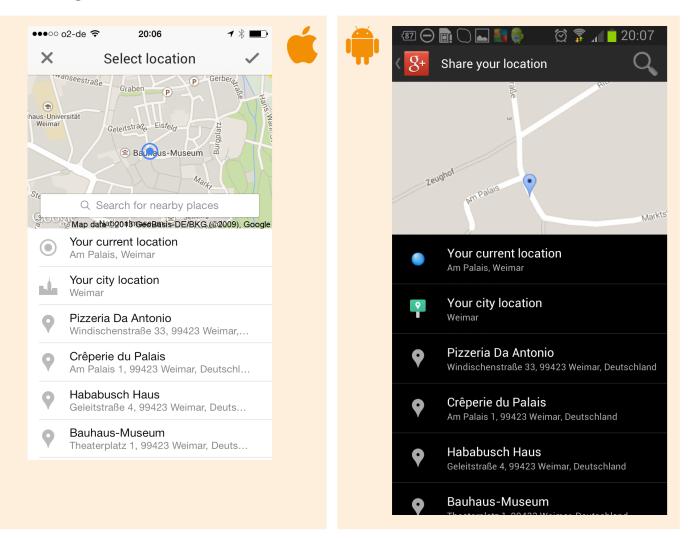
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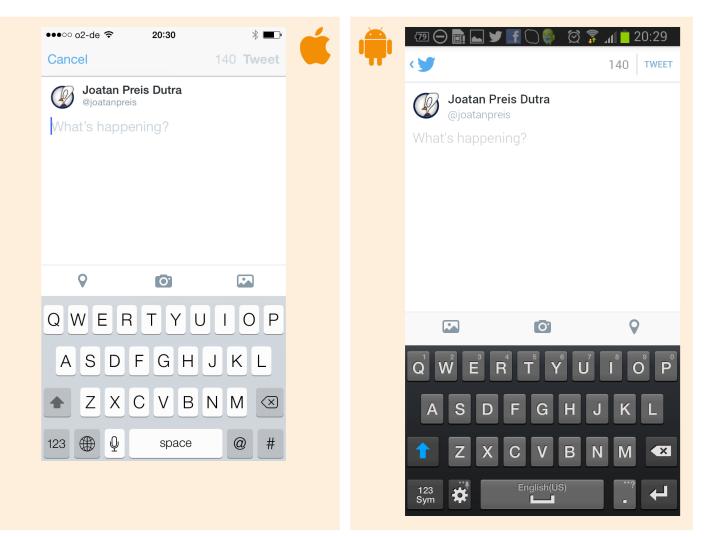


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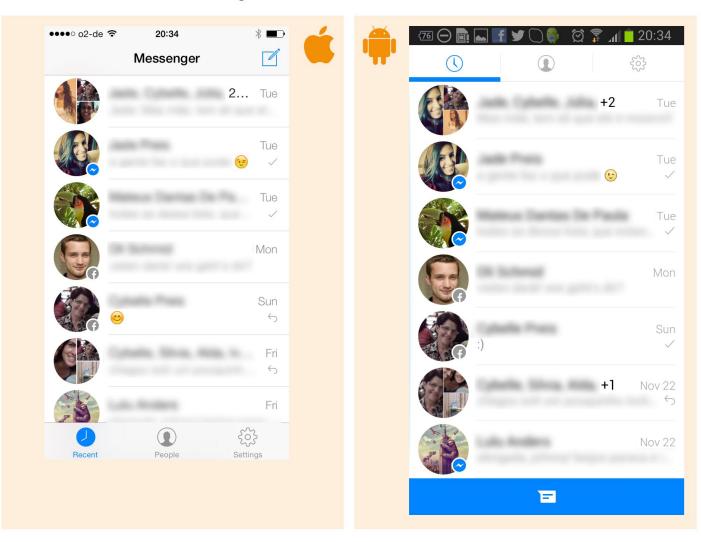
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### Facebook Messenger



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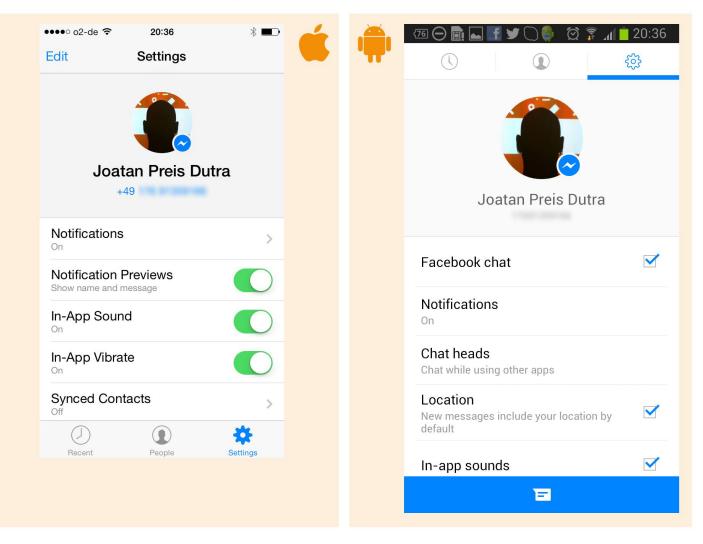


### Facebook Messenger

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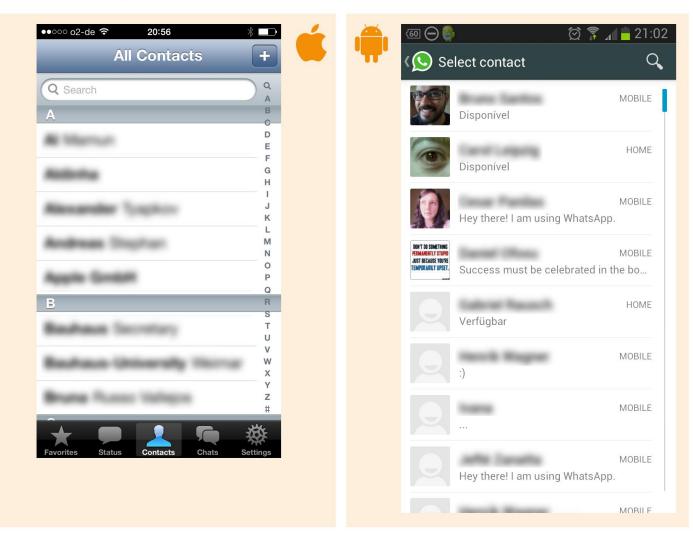
### Facebook Messenger



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### 🗵 WhatsApp



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### WhatsApp

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### WhatsApp

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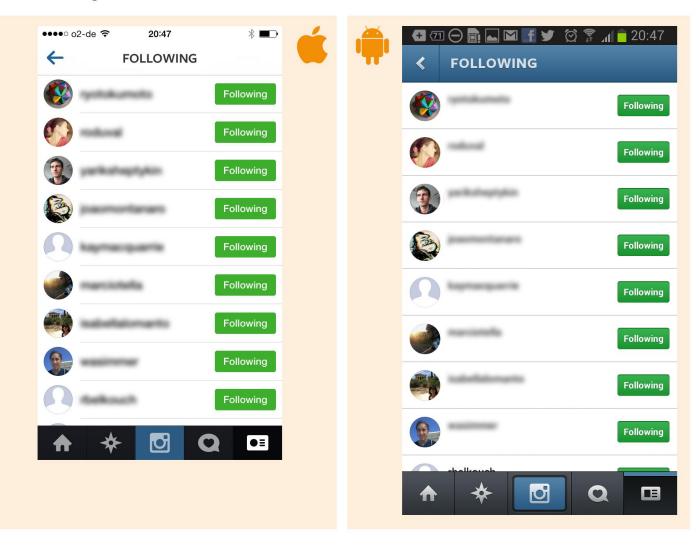
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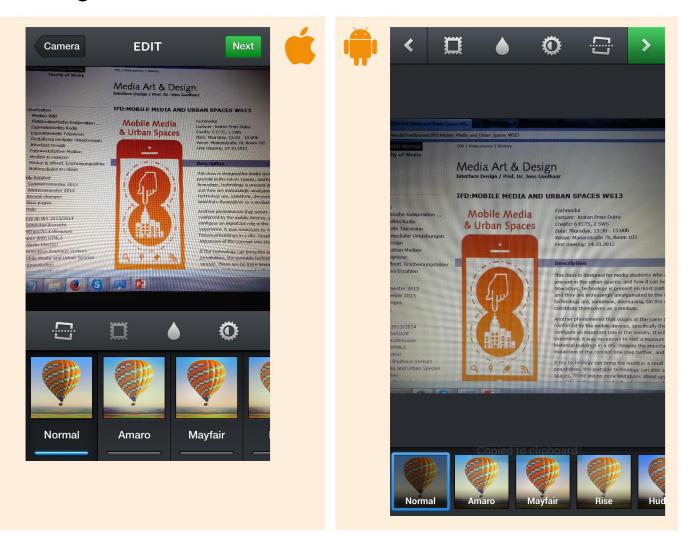
#### Instagram



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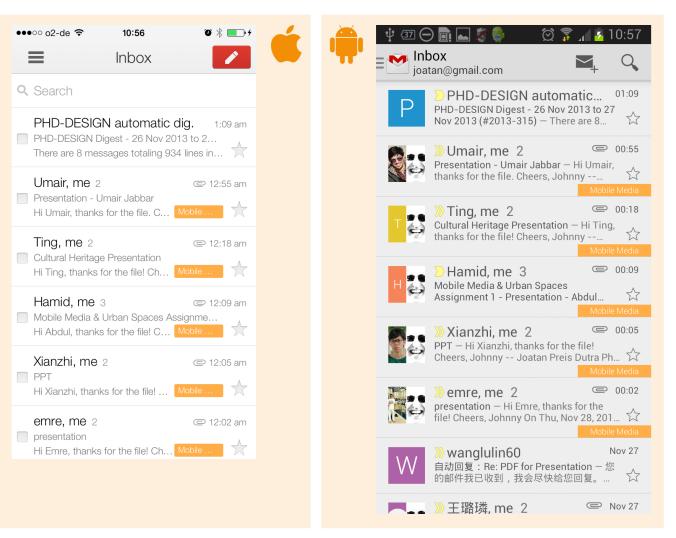
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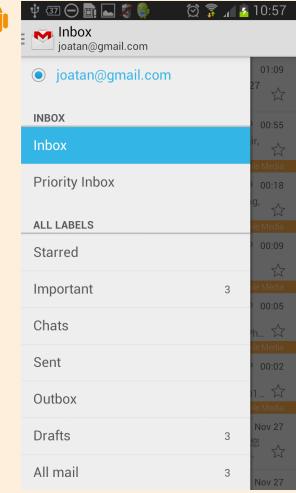




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More examples available at

Johnson, J. (2013, January 11). Android vs. iPhone - Differences in UI Patterns and Design. Retrieved May 21, 2013, from

http://www.slideshare.net/jeremy/android-vs-iphone-differences-in-ui-patterns-and-design

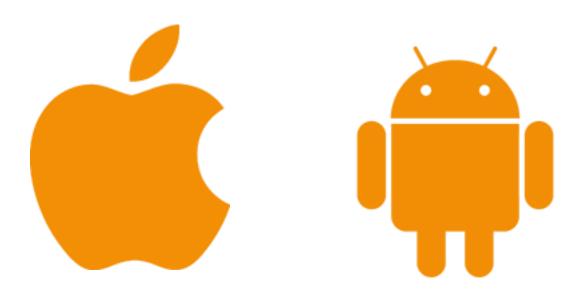
- Endnote
- NPR News
- Spotify
- PinterestAmazon
- Yelp!
- Foursquare
- Expedia
- etc

Examples using

- HTC One V (Android 480 × 800 pixels)
- iPhone 5 (iOS 6.1.4 640 x 1136 pixels)

# iOS & Android

# Which one is better? It is just a matter of taste



# Mockup

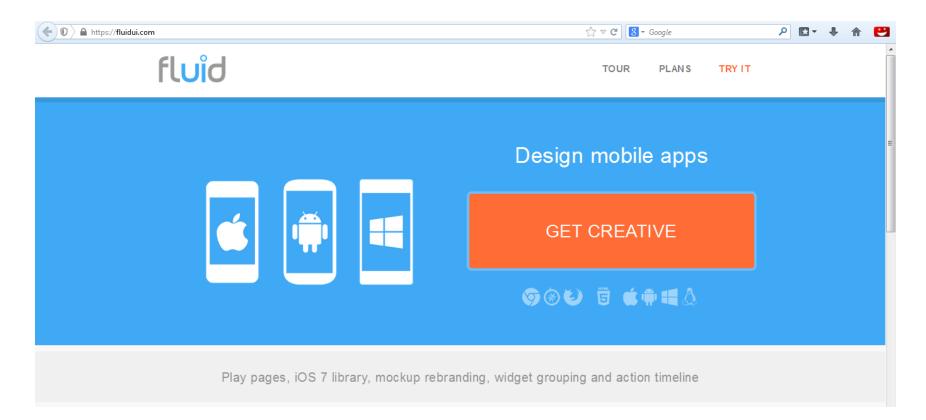
How to do

# Mockups

- Online Tools
- Photoshop Templates
- Vector Templates



### Online Tool: fluid <a href="https://www.fluidui.com/">https://www.fluidui.com/</a>



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# Mockup

# Desktop Tool: pencil <u>http://pencil.evolus.vn/</u>

Home

Features

### PENCIL PROJECT

### An open-source GUI prototyping tool that's available for <u>ALL</u> platforms.

Pencil is built for the purpose of providing a free and open-source GUI prototyping tool that people can easily install and use to create mockups in popular desktop platforms.

The latest stable version of Pencil is (2.0.3) with many enhancements and bug-fixes.

Download for Windows Version 2.0.3, exe, ~22 M For other platforms? See all downloads » 

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Downloads

Stencils & Templates

Wiki

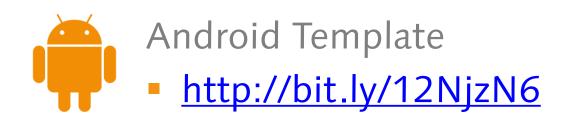
#### **Project News**

November 28th, 2012 - Pencil version 2.0.3 has been released with minor enhancements and bug fixes.

Copyright © 2008-2012 Evolus. All rights reserved. Evolus Website | Support the Project | Licensing

# Mockup

# iOS 7 Template <u>http://bit.ly/19hIole</u>



# Overview

#### **Tips & Guidelines**



## General Tips



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### UI Design Guidelines for Handheld Devices

(Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### "Select" versus "Type"

Text entry on a small device can be difficult. Where possible, and where it is appropriate to the application, the user should be offered a selection option rather than be made to enter text. Finding the best solution will require both thought and user testing.

### UI Design Guidelines for Handheld Devices

(Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### Be consistent

Ensure that the same terminology is used within an application and that the same terminology is used between handheld applications. In the absence of guidelines, try to borrow ideas from applications that have been well designed and have a high degree of usability.

UI Design Guidelines for Handheld Devices (Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### Consistency between platforms

While the same terminology can be used between handheld applications, you will need to think carefully when adapting an application from a desktop to a handheld device. It is not necessarily the case that terminology that works for a desktop will work for the smaller screened handheld device.

### UI Design Guidelines for Handheld Devices

(Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### Design stability

In the event of, say, a connectivity failure, the system should allow the user to pick up from where he or she left off when the connection is restored. For example, if the user is completing some sort of form and a wireless connection goes down, the data in the fields from previously should not be lost and have to be reentered.

UI Design Guidelines for Handheld Devices

(Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### Provide feedback

The system should support the user with feedback regarding what the application is doing. Feedback in relation to, say, the use of an application or navigation within it could be provided via an assigned information key.

### UI Design Guidelines for Handheld Devices

(Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### Forgiveness

The UI should be tolerant of user errors and provide an Undo function by, where feasible, a specially designated Back key.

### UI Design Guidelines for Handheld Devices

(Stone & Open University, 2005, p. 384) (adapted from Weiss, 2002, pp. 66–70)

### Use metaphors

Real-world metaphors in line with the size of the display should be used. For example, while a desktop metaphor would be inappropriate for a cell phone, the use of an address book for storing telephone numbers would be okay.

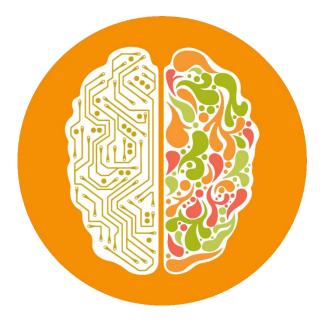
UI Design Guidelines for Handheld Devices (Stone & Open University, 2005, p. 385) (adapted from Weiss, 2002, pp. 66–70)

Clickable graphics should look clickable
 If a graphic is clickable, then it should have defined
 borders and the graphic should have high contrast with
 the background color. Conversely, graphics that are
 static should not appear to be clickable.

UI Design Guidelines for Handheld Devices (Stone & Open University, 2005, p. 385) (adapted from Weiss, 2002, pp. 66–70)

Use icons to clarify concepts
 Icons should be meaningful and representative of the concepts they are meant to convey.

Most Important:



# Be **CREATIVE** and **LOGICAL**

# and try something **NEW!**

Image retrieved and modified from http://estudioimg.files.wordpress.com/2012/05/two-sides-of-brain.png

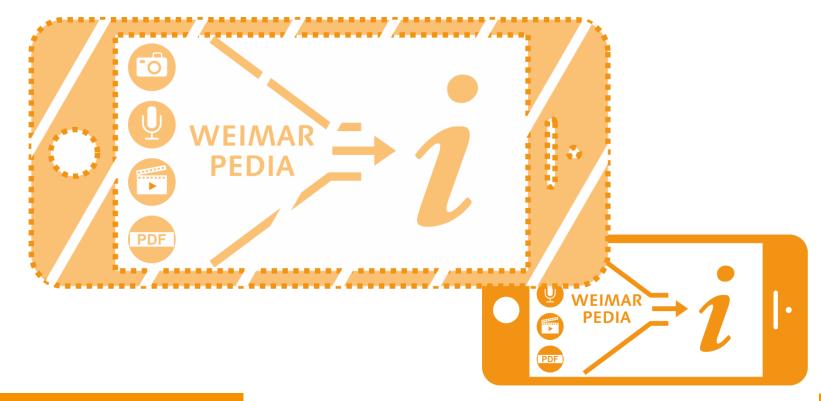
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Mobile Media & Urban Spaces | Mobile Guidelines

# 2<sup>nd</sup> Presentation

What should be done

### Meeting presentation (draft) + - 8 minutes



### Meeting presentation (draft)



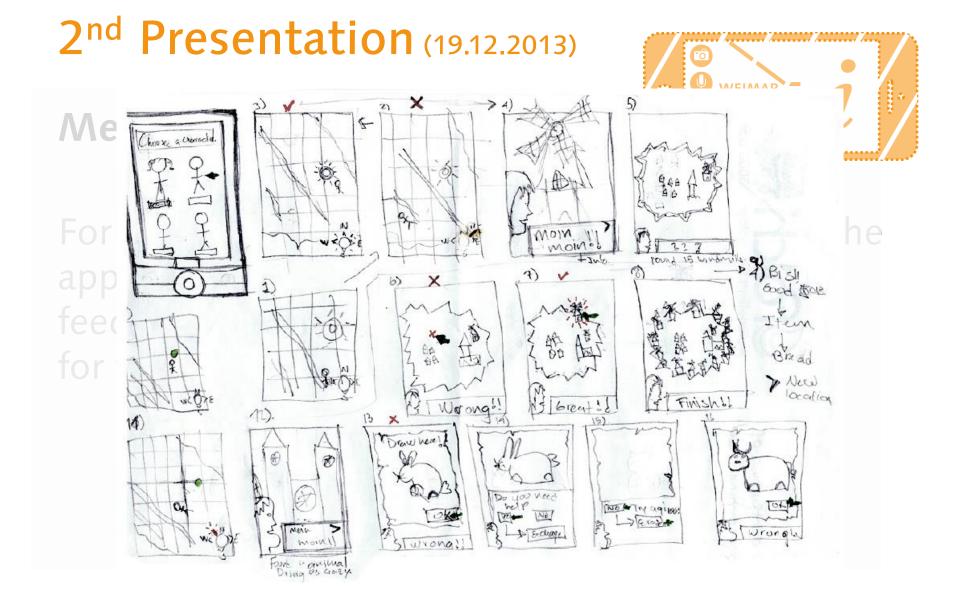
For this moment, it is just needed the app idea with navigation and content structure;

The main point is to present your idea, followed by discussion before doing the final version.

### Meeting presentation (draft)



For the first/draft version, should be explored the app idea and structure, in order to receive the feedback and possible adjustments suggestions for the final version.



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Meeting presentation (draft)



The conceptual prototype, developed for mobile devices, should use collaborative/participatory activities, applied for cultural purposes.

This prototype must be developed using the *weimarpedia.de* content.



Meeting presentation (draft)



The Weimarpedia.de project contains:

- Karte: Map
- Lexikon: Encyclopedia
- Galerie: Gallery from students
- Materialen: Materials for teachers

More references at class #02 Mobile Media & Urban Spaces – Cultural Heritage <u>http://www.uni-weimar.de/medien/wiki/images/IFD mobile-media urban-spaces 02 cultural-heritage.pdf</u>



**Meeting presentation (draft)** 

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### Each student will have around 8 minutes

<u>http://www.uni-weimar.de/medien/wiki/IFD:Mobile\_Media\_and\_Urban\_Spaces\_WS13/presentations#Draft\_Meeting\_\_\_19.12.2013</u>

Mobile Media & Urban Spaces | Mobile Guidelines

### 2<sup>nd</sup> Presentation – FINAL VERSION



### **Final Version**



- Every student will use their own computer
- No need to deliver the presentation before, but it must be on our wiki page no longer than 24 hours after the presentation.

### **Final Version**



Keep in mind that the Weimarpedia.de content deals with:

- Geo-Location (Map)
- **Cultural Information** (Encyclopedia)
- **Collaboration** (Students can upload content)

### **Final Version**



It is possible to use any kind of existing technologies, but you should show how it would work, with mockups and screens illustrations.





### **Final Version**



Be aware also for official guidelines of the chosen platform



### **Final Version**



Questions you should think about:

- What is the main purpose of your app
- "Where is the beef?" = What is new about it?
- Why people would use it?
- How the users will collaborate with it?
- Will it enhance the knowledge about Weimar and its Cultural Heritage sites?

### **Final Version**





# Each student will have 25 minutes

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### Bauhaus-Universität Weimar Mobile Media & Urban Spaces | Mobile Guidelines

#### 98

### 2<sup>nd</sup> Presentation (January 2014)

### **Final Version**

At the 20<sup>th</sup> Minute, it will be shown a Green card.

Here the time is fine – it is just a reminder that there is still one minute to go.



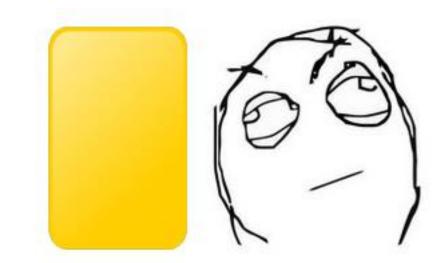


### **Final Version**

At the 23<sup>th</sup> Minute, it will be shown a Yellow card.

Here the time is over – and the student should hurry to finish the presentation.





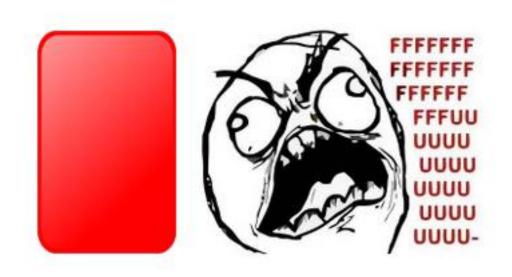
#### Bauhaus-Universität Weimar Mobile Media & Urban Spaces | Mobile Guidelines

### 2<sup>nd</sup> Presentation (January 2014)

### **Final Version**

At the 25<sup>th</sup> Minute, it will be shown a Red card. Here the presentation will be interrupted.





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**References for further readings** 

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# **Thank You!**



# Mobile Media & Urban Spaces

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### 04. Mobile Guidelines



http://www.uni-weimar.de/medien/wiki/IFD:Collaborative\_Mobile\_Media\_SS13



### http://tiny.cc/mobilemedia2013

