Mobile Media & Cultural Heritage

Bauhaus-Universität Weimar

05. Mobile Guidelines

WS2015
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_Cultural_Heritage_WS15

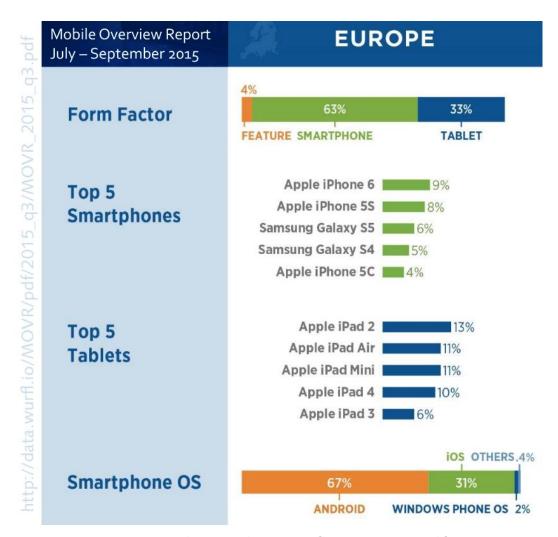
Summary

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Platforms

Mobile OS in Europe (July - September 2015)



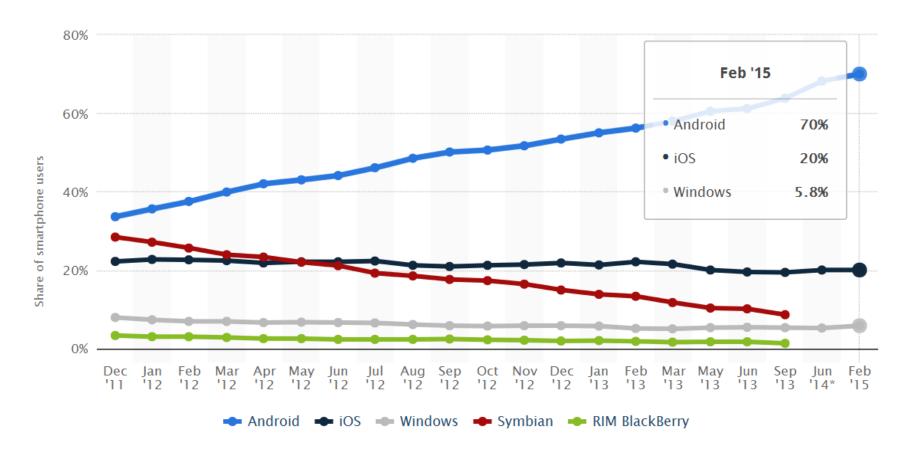
OS:

- 67% Android
- 31% iOS

Source: http://data.wurfl.io/MOVR/pdf/2015_q3/MOVR_2015_q3.pdf

Mobile OS in Germany

(December 2011 – February 2015)



Market share of smartphone operating systems in Germany from December 2011 to February 2015

Android & iOS

Two most popular mobile platforms

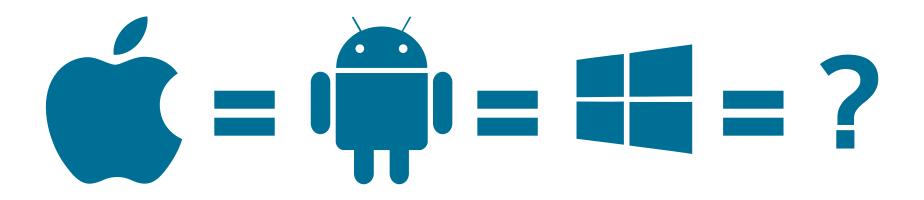




Guidelines

Official Resources

Guidelines

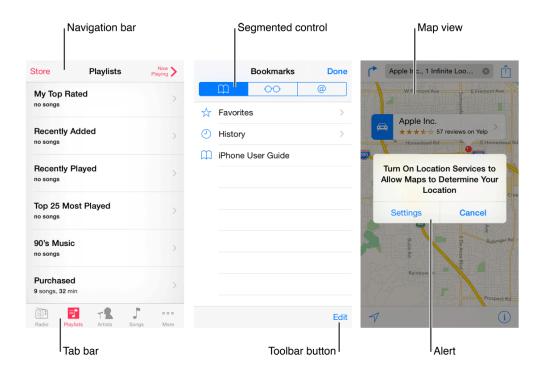


Official Design Guidelines: iOS

iOS Human Interface Guidelines

 https://developer.apple.com/library/ios/documentation/ UserExperience/Conceptual/MobileHIG/index.html



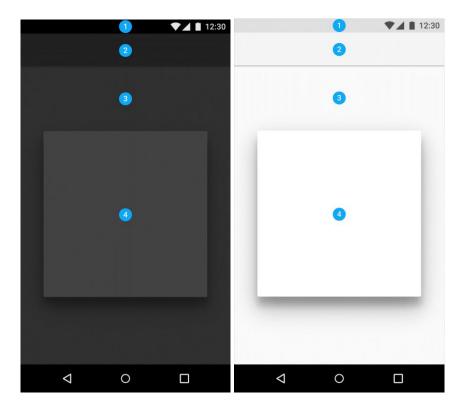


Official Design Guidelines: iOS

Design | Android Developers

http://developer.android.com/design/index.html



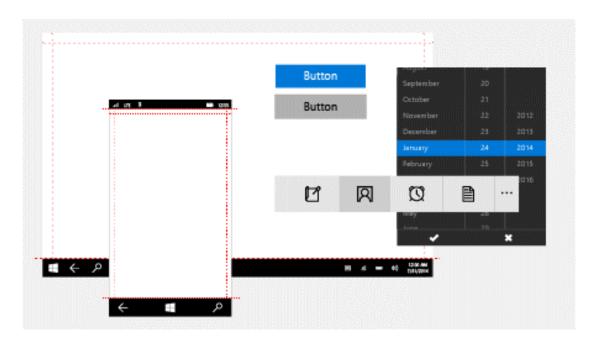


Official Design Guidelines: Windows

Design Universal Windows Platform (UWP) App

https://dev.windows.com/en-us/design





iOS 9 vs Android 6.0 General Interface Elements

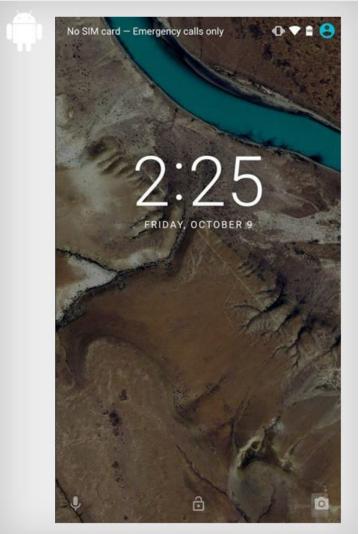


Retrieved and Modified from: iOS 9 vs Android 6.0 Marshmallow: comparison of interfaces | AppleApple .top world news. http://appleapple.top/ios-9-vs-android-6-0-marshmallow-comparison-of-interfaces/

iOS 9 vs Android 6.0 - Retrieved and Modified from: (AppleApple .top world news," n.d.)







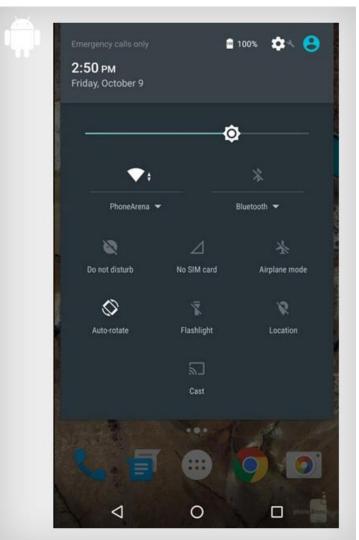
The Lock Screen iOS 9 (left) and Android 6.0 Marshmallow (right)





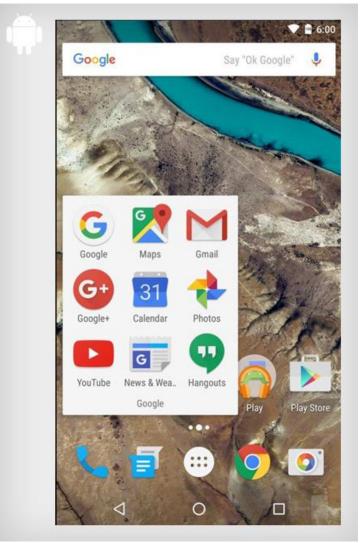
Home Screen





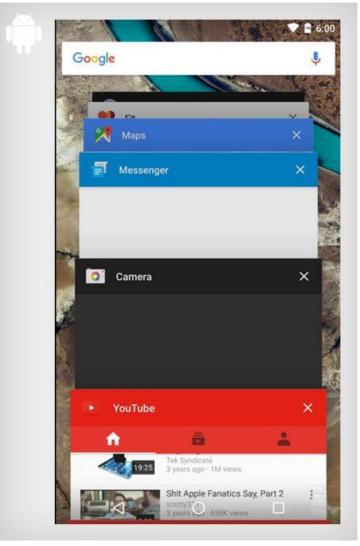
Control / Notification Center



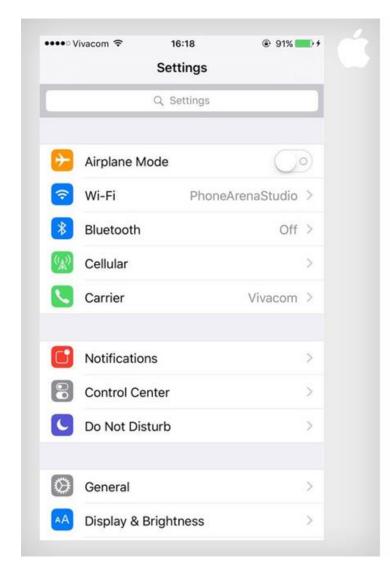


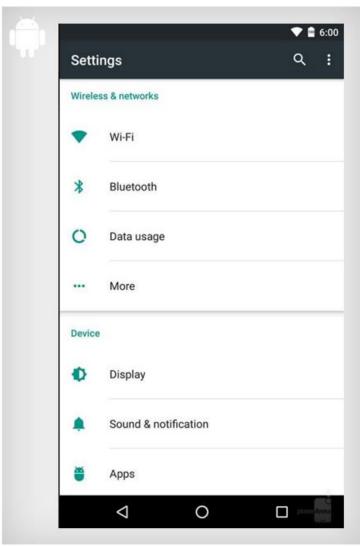
Folder



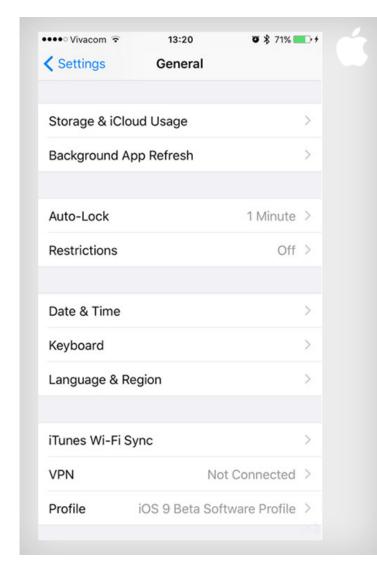


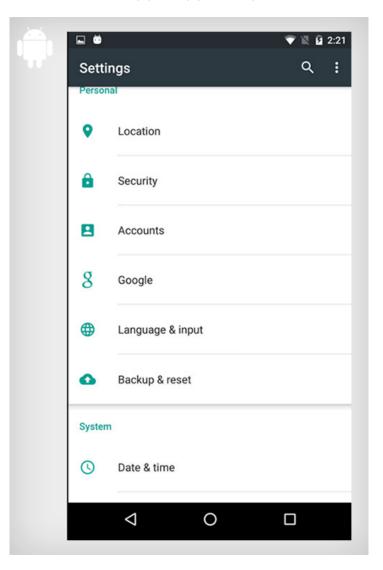
Multitasking bar





Settings





Main settings

iOS 9 vs Android 6.0

More about the current OS:

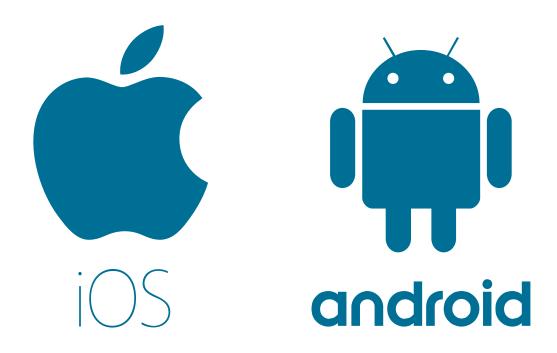


iOS 9 – What's New – Apple
 http://www.apple.com/ios/whats-new/



 Android – Marshmallow https://www.android.com/versions/marshmallow-6-0/

iOS & Android Interface Structure



Retrieved and Modified from: McKibben http://www.kinvey.com/blog/2765/ios-and-android-design-guidelines-cheat-sheet









#1 STATUS BAR

Contains

Battery charge, network connection, time.

Things to note

It can hidden but should only be done when the media being displayed needs the extra real estate.

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Contains

Battery charge, network connection, time.

Things to note

It can hidden but should only be done when the media being displayed needs the extra real estate.





#2 NAVIGATION BAR

Contains

Navigation controls (like the back button, screen title, content display control (like filtering).

Things to note

If the screen title is too long to fit on the screen, it should be truncated-not scaled down in size.

#2 MAIN ACTION BAR

Contains

Up button, app icon, spinner.

Things to note

This bar is both a source of navigation as well as a toolbar for the displayed content.





#3 CONTENT DISPLAY

Contains

Standard and custom content views such as map view, page view, table view, web view, and collection view.

Things to note

This is the most customizable are of the application. Typical screen views should remain as true as possible to the standard iOS screen designs in order to maximize user familiarity.

#3 CONTENT DISPLAY

Contains

Standard and custom content views such as map view, page view, table view, web view, and collection view.

Things to note

This is the most customizable are of the application. Typical screen views should remain as true as possible to the standard android screen designs in order to maximize user familiarity.





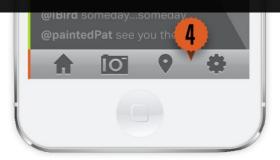
#4 TAB BAR / TOOLBAR

Contains

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

Things to note

Tab bars are used as 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.



#4 ACTION BAR TABS

Contains

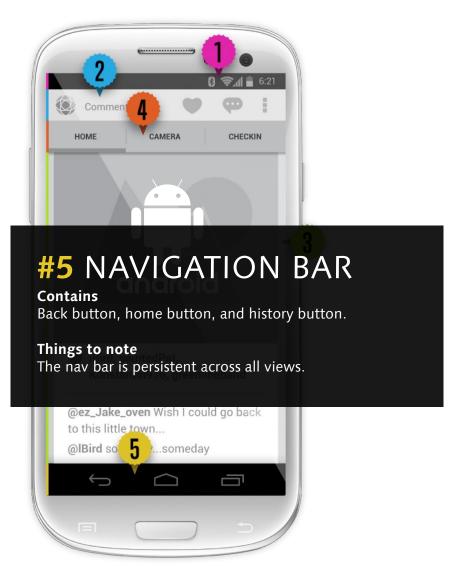
Tab style navigation.

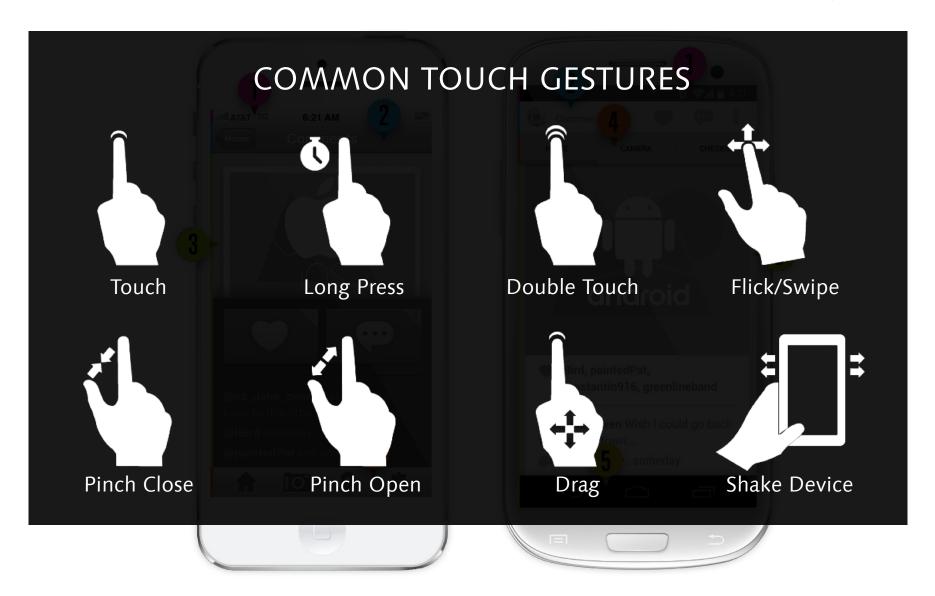
Things to note

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.



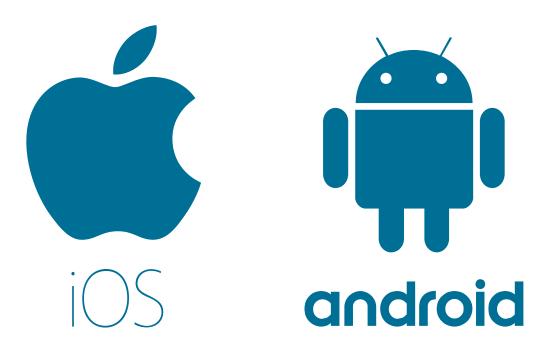






iOS & Android

Designing for Both Android and iOS



Retrieved and Modified from: O'Sullivan http://webdesign.tutsplus.com/articles/a-tale-of-two-platforms-designing-for-both-android-and-ios--cms-23616

Choose a lead

Prioritize one platform at the outset. Make this decision not based on your personal preference, but based on the market for your app.

- Do more people in your market use Android phones?
- Is it a paid app?
- What is the target audience?

Asking these questions will help you to decide on which is preferable.

Know the rules

Read up on UI guidelines for **Android** and **iOS**.

In the past Apple was known for being more strict with their guidelines. To get an app in the app store, there is an approval process which takes approximately two weeks.

Here is no approval process for the Play store.

However, due to this lower barrier to entry on Android the quality of design has traditionally been worse off.

Google are looking to change this with their **Material** Design guidelines.

General style

Since iOS7, Apple has shifted to a flatter design style, and ditched the skeuomorphic shadows, textures and effects which defined the iPhone's early years.

Android, having been more systematic in style in the beginning, has gone slightly the other way. Google's Material Design guidelines create more subtle references to the real world, with a layered "paper" approach providing more hierarchy.

General style







Skeuomorphism or Flat Design?







Image Retrieved from:

https://www.interaction-design.org/literature/article/skeuomorphism-is-dead-long-live-skeuomorphism

Real buttons

Android phones have a back button, which can be used to return to previous screens in the app.



iPhones don't have this button, so there needs to be a way to travel back to the previous screen. This is usually done by a "back" chevron in the top left of the screen, but needs to be considered throughout the various journeys in your app.

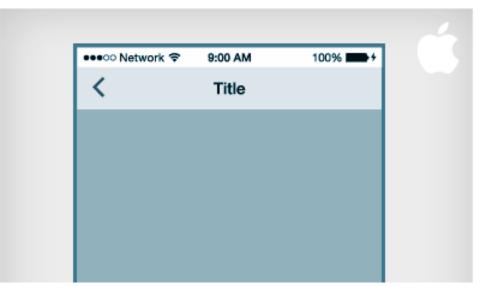
Global elements

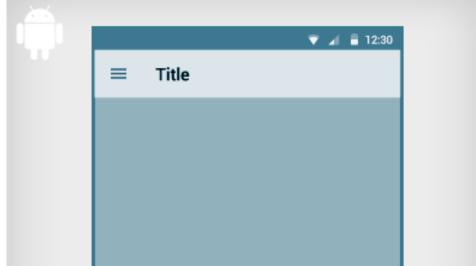
There are slight differences between the navigation bars on each platform.

On Android the text is left aligned, whereas for iOS it's centered. On iOS, a lot of companies replace the title of the main page with their company logo, but this is not best practice on Android.

The status bar (with your network, battery, and time information) is a native component, and you don't need to consider the design. Just make sure when presenting mockups to use the correct one to avoid any confusion or distraction.

Global elements





Navigation

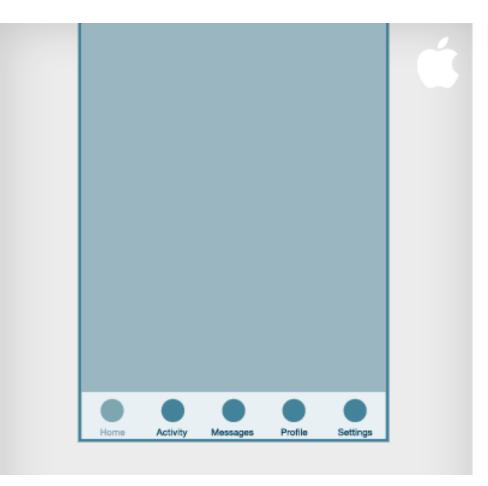
Here there is an <u>article</u> about the architecture of an app.

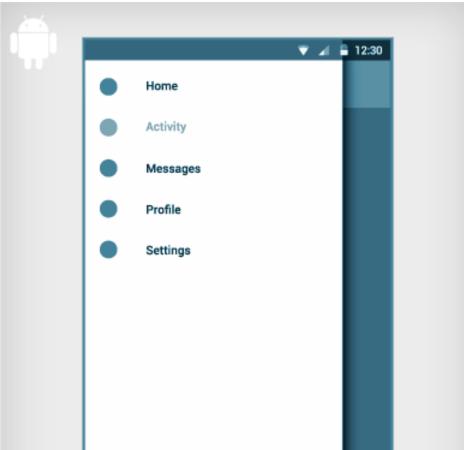
There are two navigation patterns:

- a drawer menu for Android
- and a tab bar for iOS.

It's sometimes easier to simply hide the navigation layer while you work on individual views.

Navigation





Cards

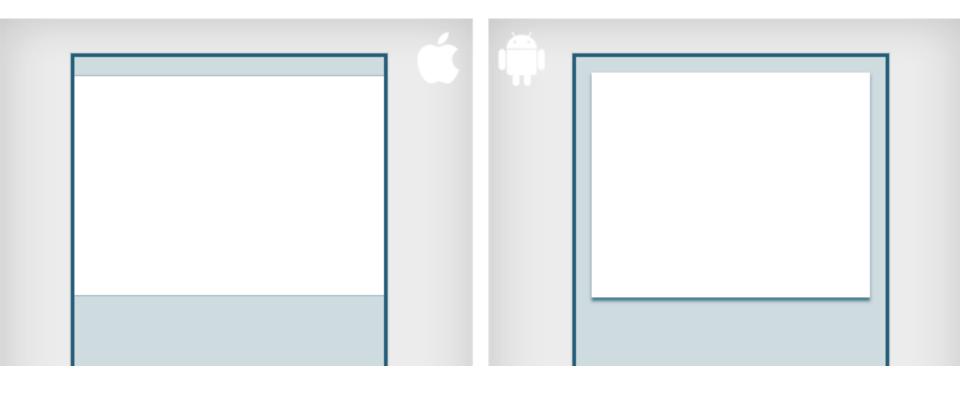
Cards are becoming the primary UI pattern in digital design. They're versatile and allow users to consume quick bites of content in a way that suits mobile behaviors. Visually, cards fit in very well with Android's material design (it being inspired by paper). Using drop shadows and reasonable gutters between cards will create a native look and feel naturally.

Cards

iOS guidelines suggest using depth in transparencies and overlays, but the basic view is usually more flat.

If you're going with cards on iOS be very gentle with any use of shadow, and try to keep them as subtle as possible.

Cards



iOS & Android: Design Guidelines

Typography

The system font family on iOS is San Francisco (before it was Helvetica Neue). On Android it is Roboto.

ROBOTO

ABCDEFGHIJKLM NOPQRSTUVWXYZ

SAN FRANCISCO

ABCDEFGHIJKLM NOPQRSTUVWXYZ

Image Retrieved from:

https://macnn.mnmcdn.com/article_images/129038-md-B2wigA8CUAA2_4A.jpg

Typography

A few generalizations:

- Android Material Design uses ample white space in layout
- There is also more dramatic use of font sizing in material design. Striking headings with lots of space provide the hierarchy
- On iOS, there is less dramatic variation in sizing. But there is slightly more variation in font weights, which still allows you to create a hierarchy.
- Typically, both platforms use lighter weights in the font family. However, in the example below, the Android design is using light and regular weights of Roboto, while the iOS design is using bold and regular weights of San Francisco.

Typography

This is a very simple example, to emphasize how even in simple ways the typography can immediately tell you if you're dealing with an Android or an iOS app.



Dolor Sit Amet Consectetur adipiscing elit.

Dolor Sit Amet Consectetur adipiscing elit.

Lorem ipsum

Dolor Sit Amet

Consectetur adipiscing elit.

Dolor Sit Amet

Consectetur adipiscing elit.

Button styles

There are several button styles defined in Material Design:

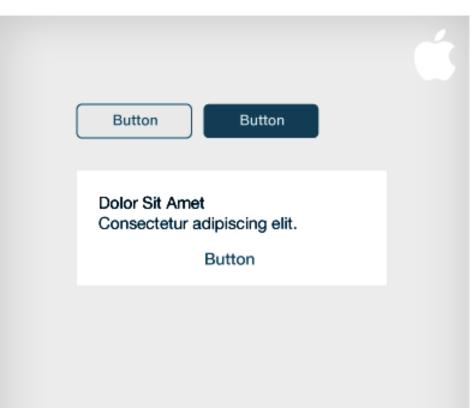
- Floating action buttons: the most traditionally shaped buttons. The drop shadows are quite heavy and lift them off the page. These should only be used on backgrounds, or sparingly on cards. They shouldn't be used at all on alerts or popups, as doing so creates too many layers of depth. The primary action takes your accent color, while the secondary versions are usually a less prominent color.
- **Flat buttons**: essentially text in your accent color, without any bounding elements. They use padding and all caps case to give them structure.

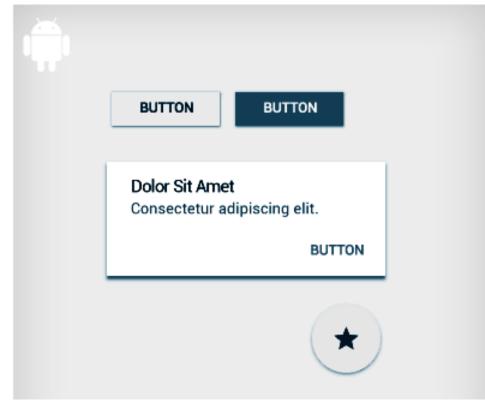
Button styles

Compared to Material Design, iOS apps are typically flat in appearance, making no use of depth or drop shadows. The primary buttons have a fill color, while the secondary buttons are reversed out, using a stroke of the same color. This metaphor can become somewhat limited, especially when compared to tabs and other elements to follow. To get this very flat style right, it's important to have clear and consistent metaphors for what colors mean in your app.

Button styles

iOS also has a plain text style button, but it doesn't share Android's uppercase styling, and is lighter in font weight.





Action Sheets

Action sheets allow users to choose from a multitude of actions from one UI item. For example, when I touch (or long press) on an image I might want to share, upload, copy, or delete the picture.

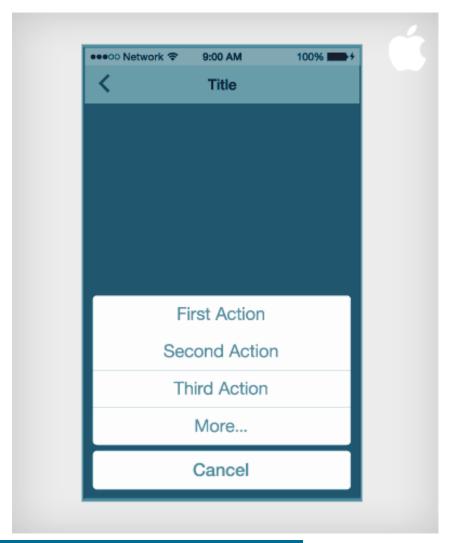
iOS and Android deal with this in slightly different ways. Firstly, there are similar action sheets which display from the bottom of the screen, as an overlay on the current view.

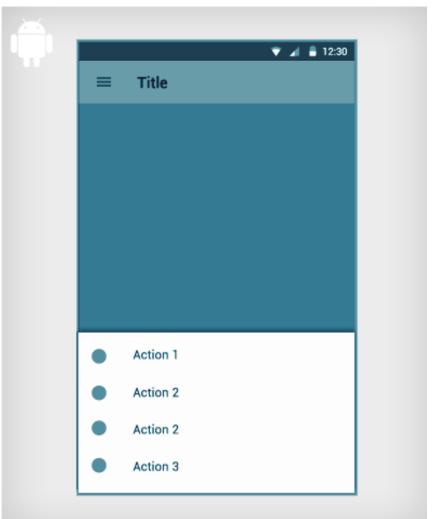
Action Sheets

With Action sheets, overlays, and alerts, iOS and Android use different details to indicate depth in layers:

- Android overlays have a solid color with a slight drop shadow to indicate that it is a "paper" layer above.
- iOS overlays have no drop shadow, but have a slight transparency on the background.

Action Sheets





Action Sheets: Dropdown buttons

Existing only on Android, these are a quick fire method of making a selection. Bear in mind, however, that there isn't a native iOS equivalent (except 3D Touch).

In the next example, the user presses on "profile", and is presented with a simple menu in that location to choose one of the available profiles. These menus are also used frequently from the overlay button in the action bar, indicated by three vertical dots.

Action Sheets: Dropdown buttons



Profile

General

Dolor Sit Amet

Consectetur adipiscing elit.

Dolor Sit Amet

Consectetur adipiscing elit.

Dolor Sit Amet

Consectetur adipiscing elit.

Lorem ipsum

Profile

General

Silent

Loud

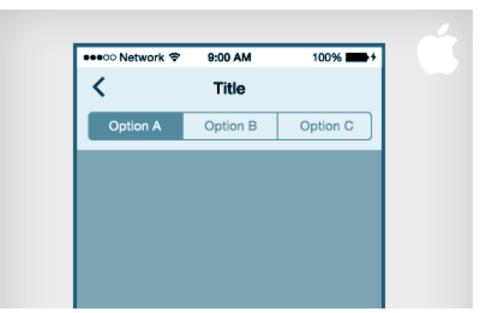
Dolor Sit Amet

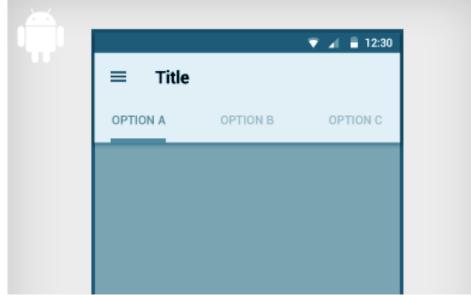
Consectetur adipiscing elit.

Segmented controls

Segmented controls are used to switch between different content within a single view. Their use is much the same, but they're very distinctive visually on each platform so it's important to use the right style. On iOS there are three tabs, styled similarly to the line buttons discussed previously. On Android, they are denoted by a simple underline, and given a lot more white space to signify their interaction.

Segmented controls





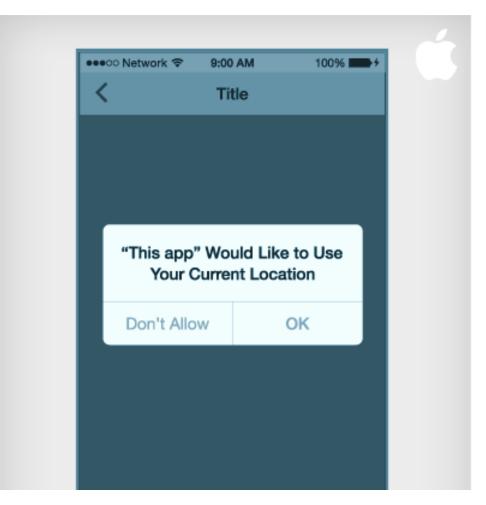
Alerts

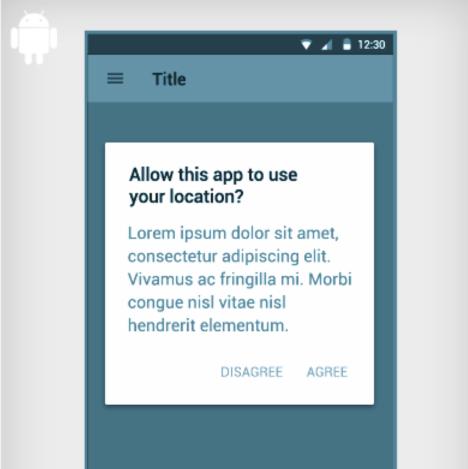
The Android alerts use the flat button styles that were shown earlier, dimensions for which can be found in the material design guidelines. The actions sit on the bottom right of the alert. The "buttons" are actually entirely text based. They use all caps to give them more structure, and they carry the primary action color of your app.

Alerts

On iOS, the actions are separated by dividers. They are usually in sentence or title case, as they gain their structure from the separate blocks. They are centered in the field, and again they will inherit your active color.

Alerts





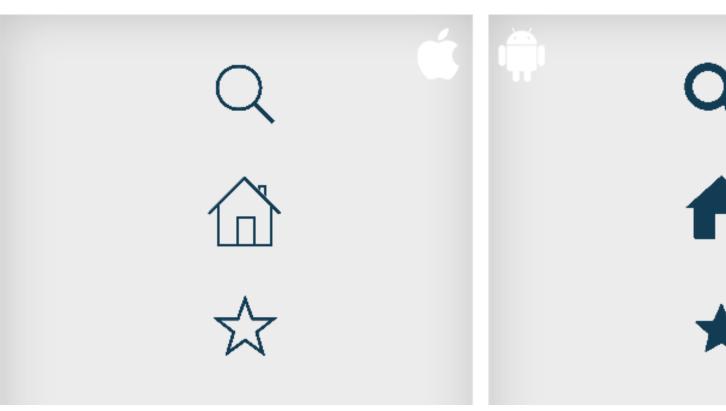
Icons

iOS popularized line icons, with very thin strokes.

The Android system icons have thicker strokes, or are entirely solid icons.

In the past, Android icons used perspective or a three dimensional twist, but now their guidelines specify two dimensional icons viewed straight on. Here's a quick example with several icons for comparison, or use the direct links to icon guidelines for <u>Android</u> or <u>iOS</u>

Icons



iOS & Android: Design Guidelines

Icons

Android

- https://www.google.com/design/icons/index.html
- http://www.google.com/design/spec/style/icons.html#icons-product-icons

iOS

- https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/ MobileHIG/BarIcons.html#//apple_ref/doc/uid/TP40006556-CH21-SW1
- https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/ MobileHIG/Iconography.html#//apple_ref/doc/uid/TP40006556-CH59-SW1

Common UI Controls

Radio buttons, check boxes, fields and switches are functional components that should be given a native feel. As with alerts and dialogues, these controls and inputs are an area of trust and familiarity for the user.

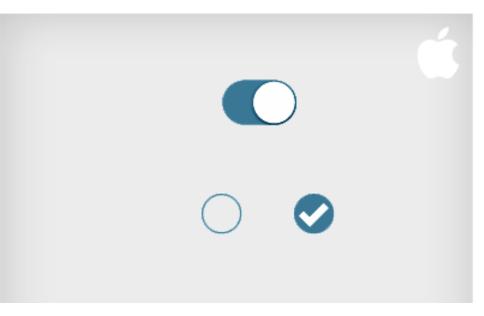
Use the native components as much as possible for these, so that people (a) know how to use them,

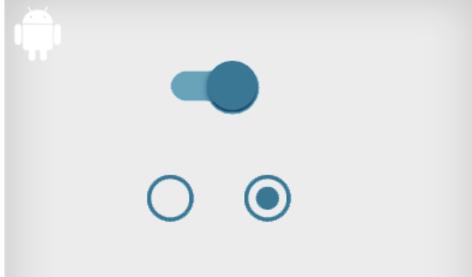
and (b) trust your app with their sensitive data or payment details.

Common UI Controls

In the next example we see switch and radio button equivalents for Android and iOS. Again, the differences are small enough for you to progress with one design, and tweak for the other later, but the subtle differences are essential for a native look. Use your UI kit as much as possible for these components, and again communicate with developers early on in the process.

Common UI Controls





Summary

It isn't an impossible task to create a native feel for your app on both iOS and Android with one design.

Try to keep on top of these tweaks from the beginning, keep an eye out for components that feel out of sync on one platform, and always work as closely as you can with developers.

Guidelines

If you want to know more, a lot of the information I've provided can be found in the platform guidelines:

- iOS Human interface guidelines
- Android material design guidelines

lcons

Even if you're making your own, or commissioning icons, they're useful to have as placeholders while you work. Icon design can be a job in itself, and you don't want icons to slow you down while you get an overall feel for your app. I recently found the links below on icons8 look pretty good, or flaticon.com is great for more general icons.

- Line icons which are great for iOS design
- Flat icons that work well with material design

UI Kits

These UI Kits will save you recreating basic native controls and matching sizes. You can pluck out the pieces you need and then switch between them for the Android and iPhone output of your designs.

- An excellent PSD template for iOS from Teehan + Lax
- Android Material Design PSD Template

Mockups

It's always useful to have device mockups for presenting your app. These come in many categories. You might want a basic device mockup for context, a simplified flat device to let your app shine, or a lifestyle mockup to present a use case.

- Official iPhone device downloads
- Flat apple devices with multiple perspectives
- Nexus 6 flat mockup
- Lifestyle mockups from placeit

iOS & Android: Design Guidelines

Resources

Templates



iOS Templatehttp://bit.ly/1Os2dwM



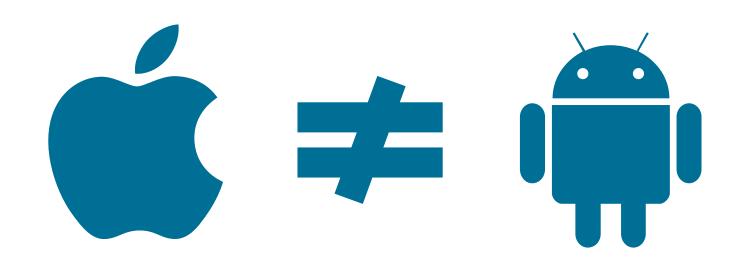
Android Template

http://bit.ly/12NjzN6

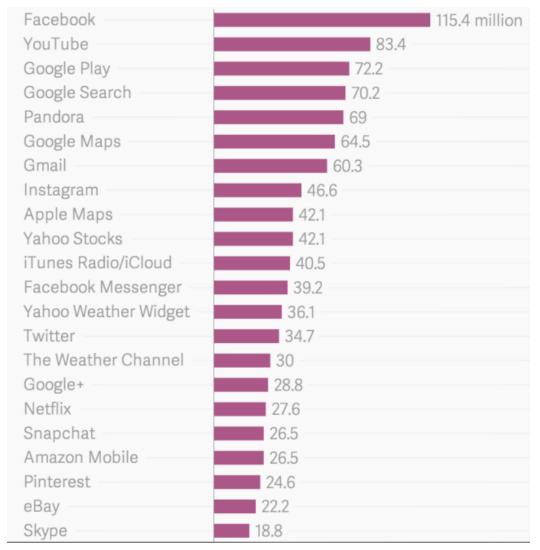
iOS & Android Comparison

Differences and Similarities

iOS & Android: Differences

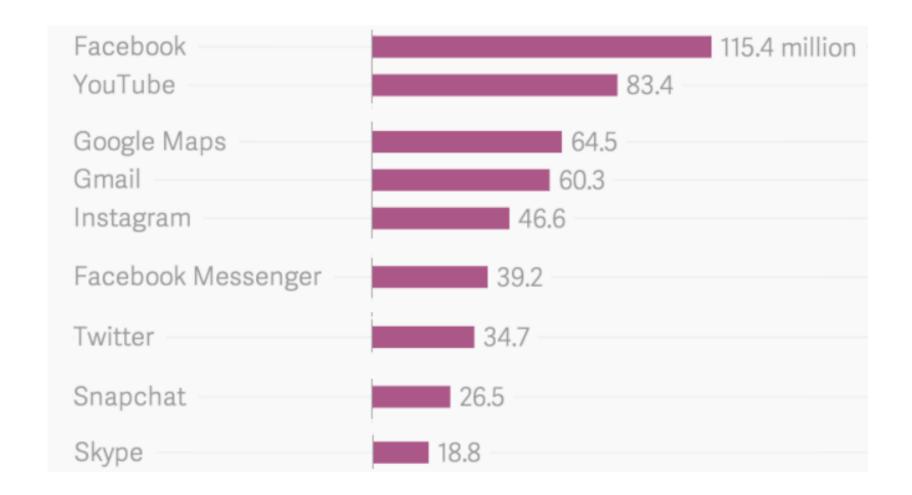


Top Mobile Apps by US unique visitors, June 2014



Retrieved and modified from: http://qz.com/481245/these-are-the-25-most-popular-2015-mobile-apps-in-america/

Top Mobile Apps by US unique visitors, June 2014



Retrieved and modified from: http://gz.com/481245/these-are-the-25-most-popular-2015-mobile-apps-in-america/

iOS & Android: Examples & Differences

Examples retrieved at 23rd November 2015, using:

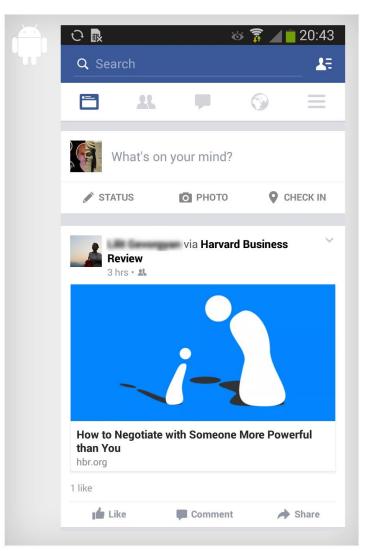
- iPhone 5c
 - iOS 9.2
 - 640 × 1136 pixels
 - **4**"
- Samsung Galaxy S3
 - Android 4.3
 - 720 x 1280 pixels
 - **4.8**"



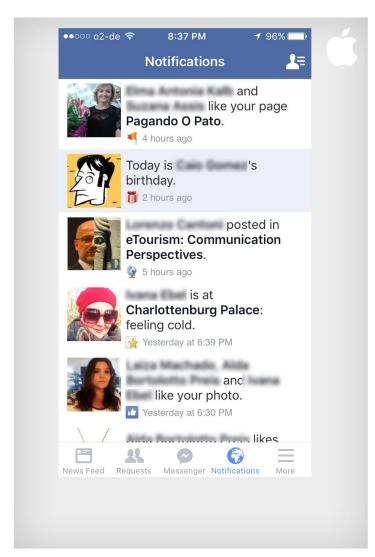


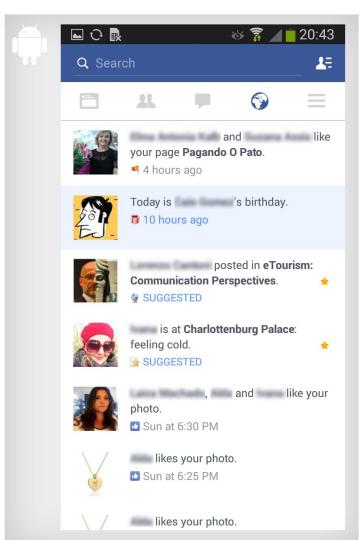




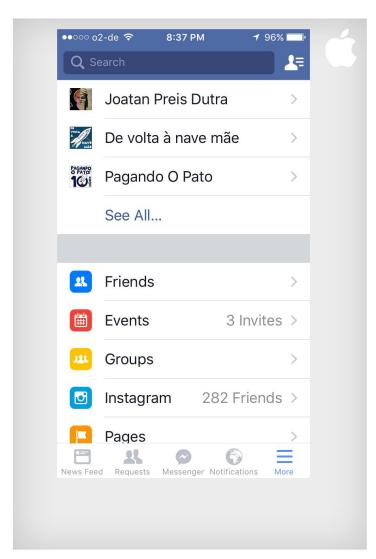


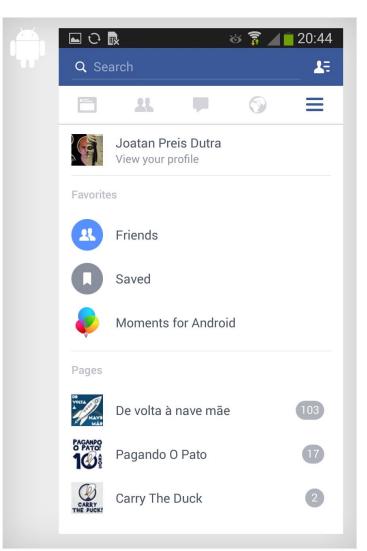


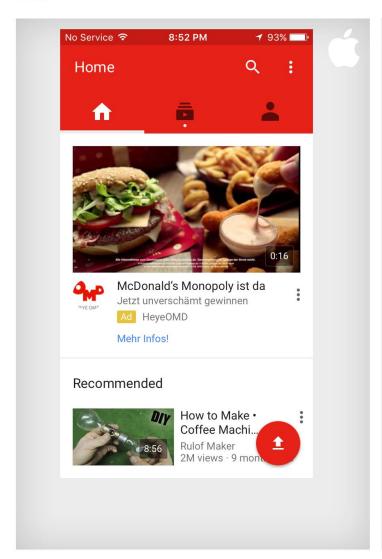


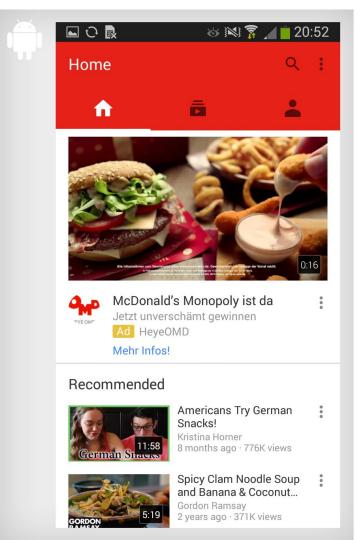


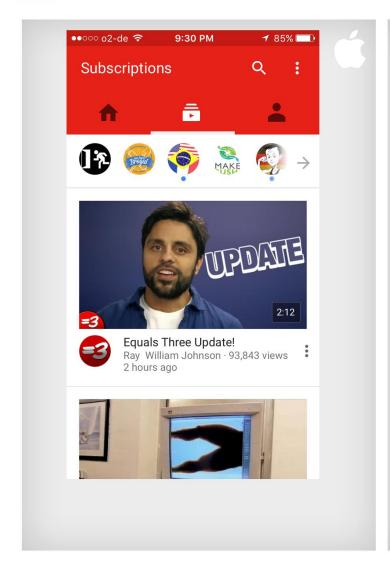
Facebook

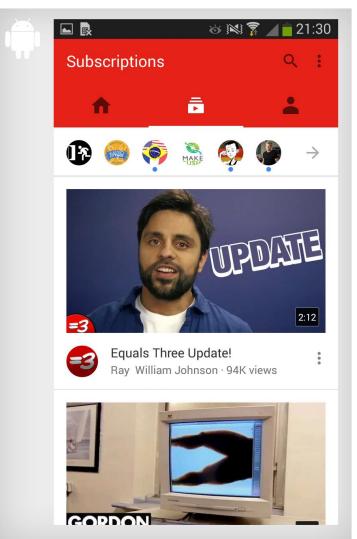


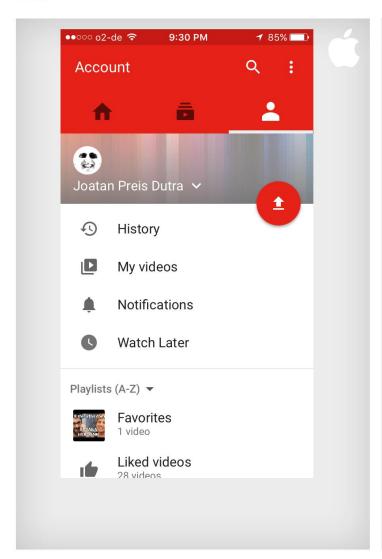


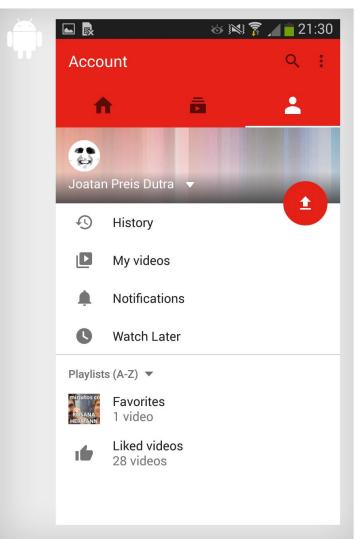


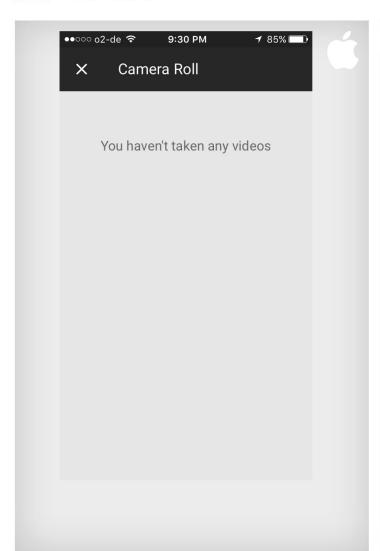


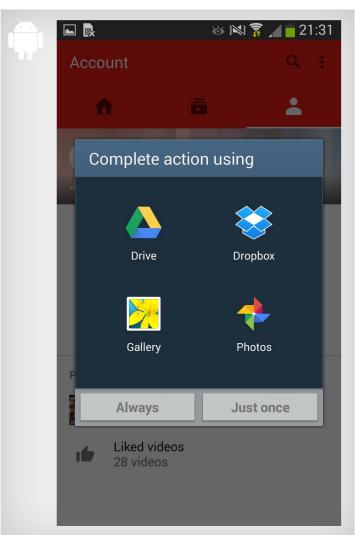


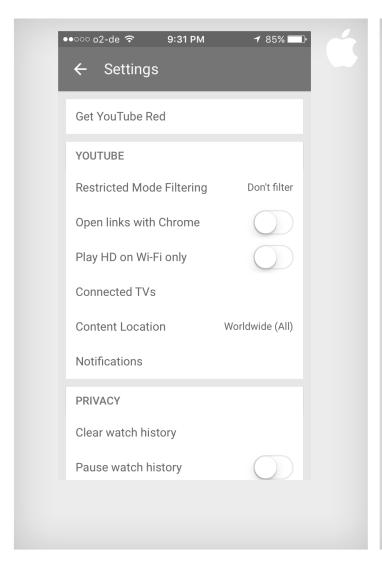


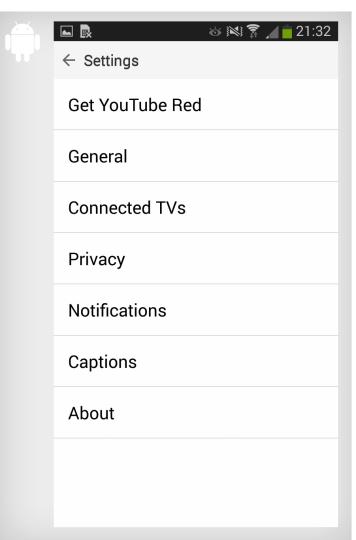


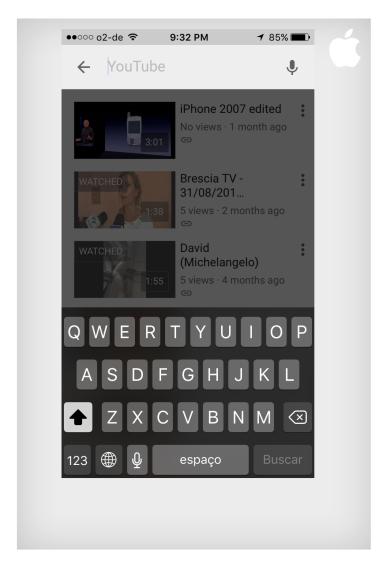


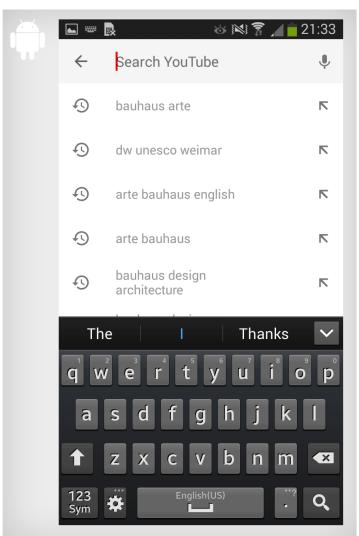




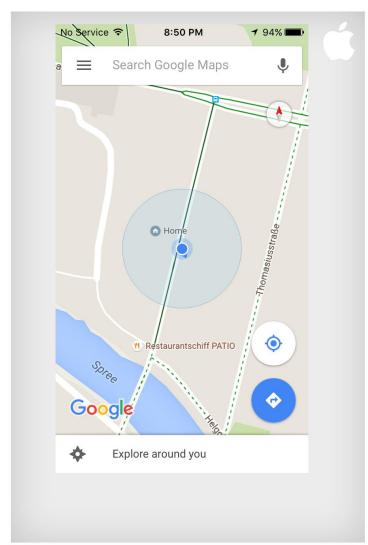


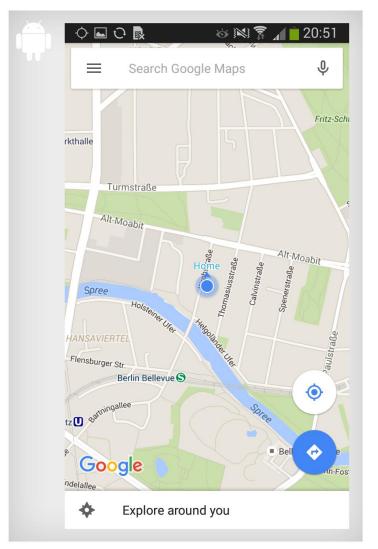




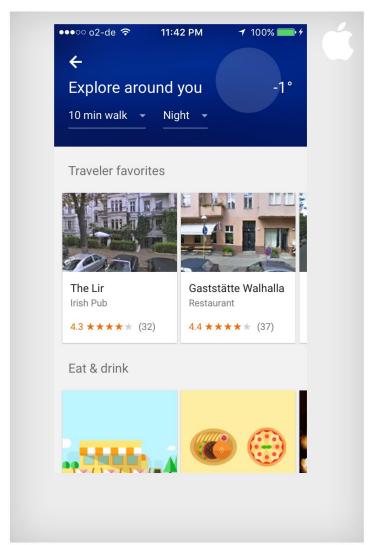


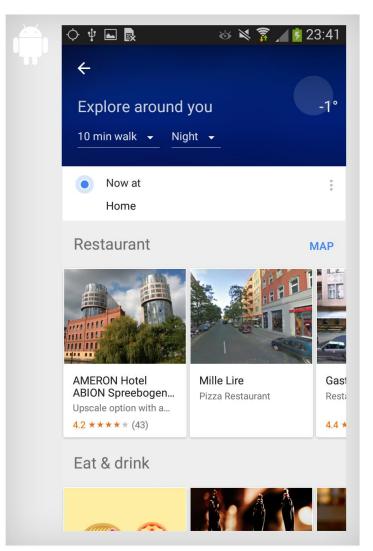






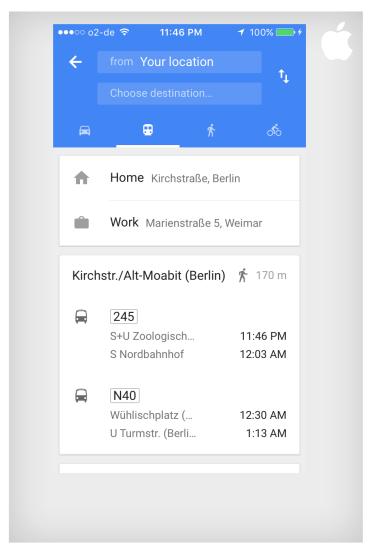


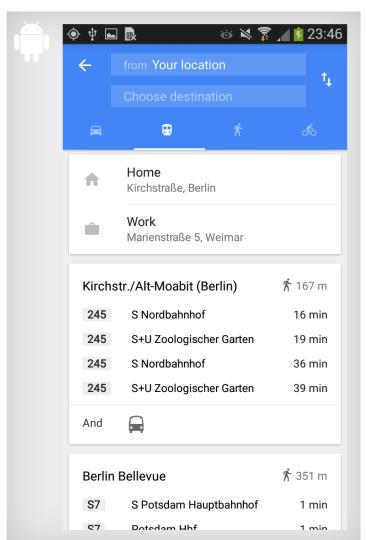




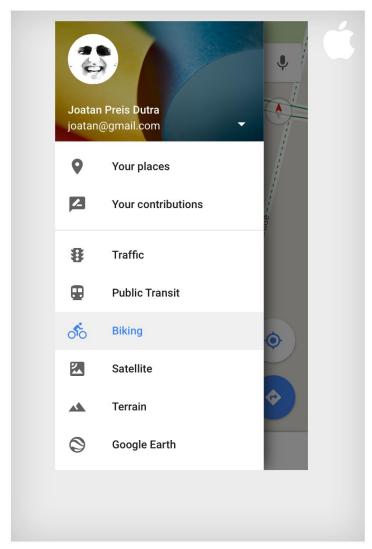
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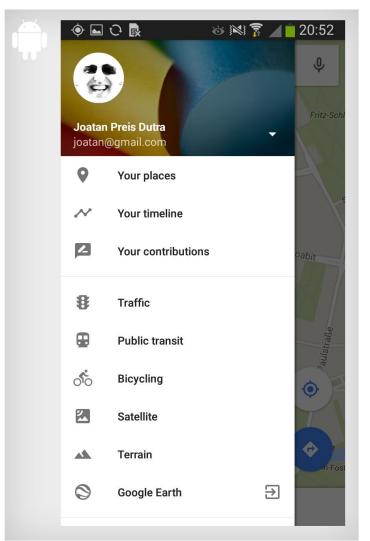






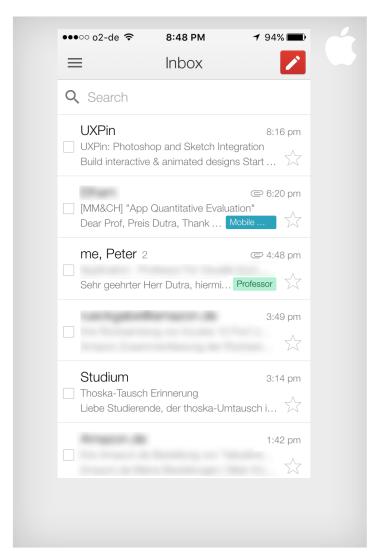


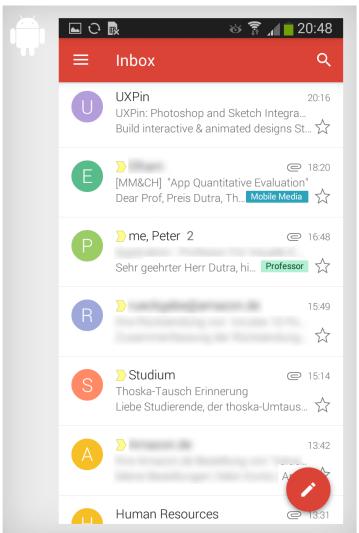




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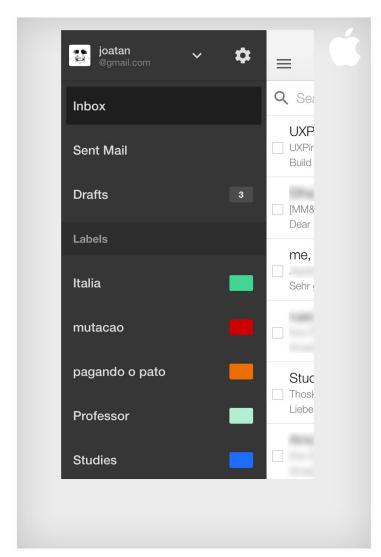


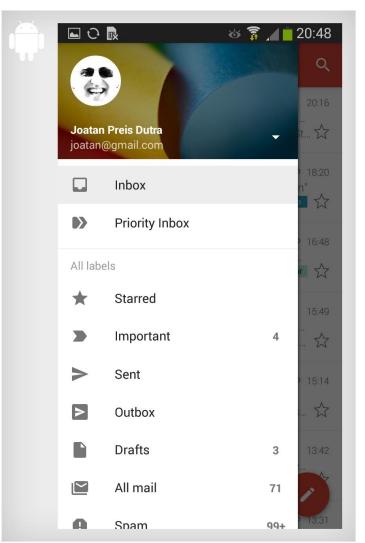




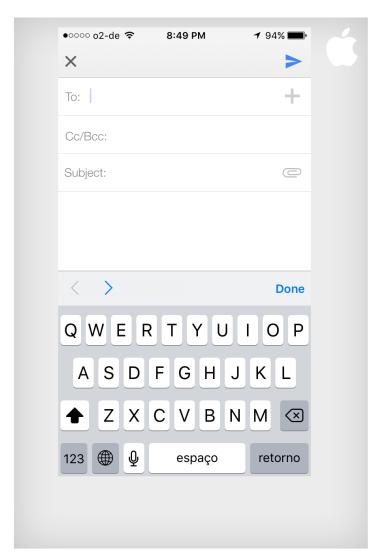
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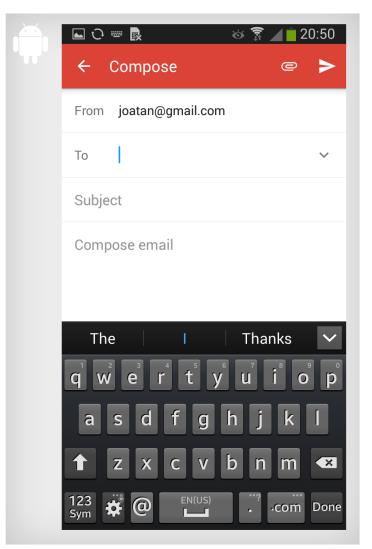




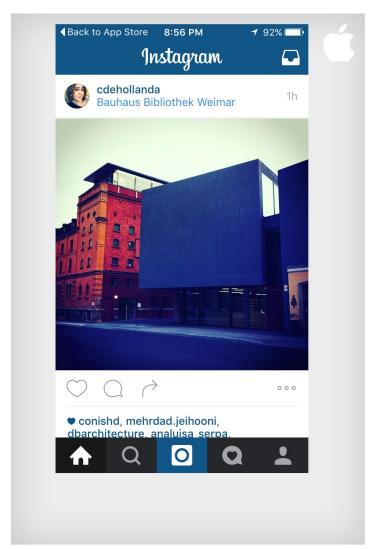


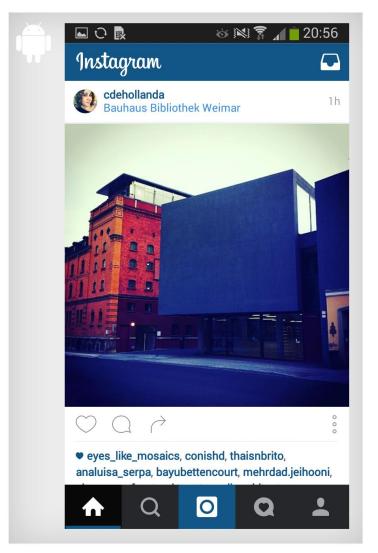










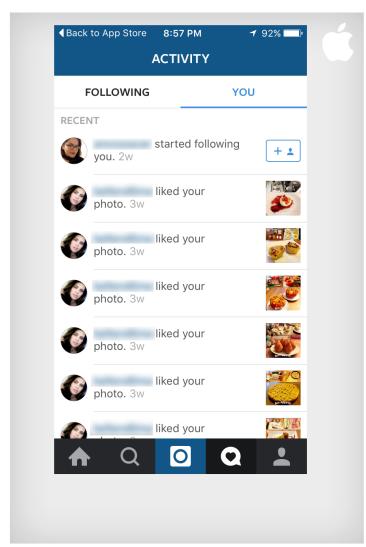


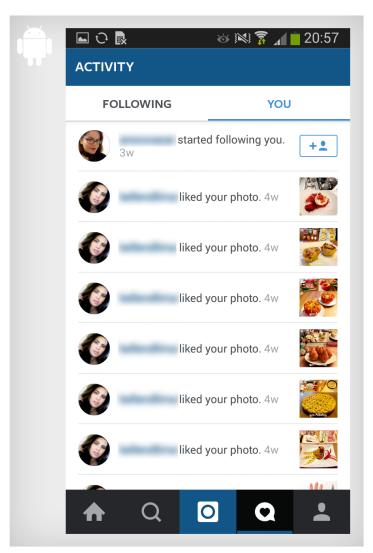




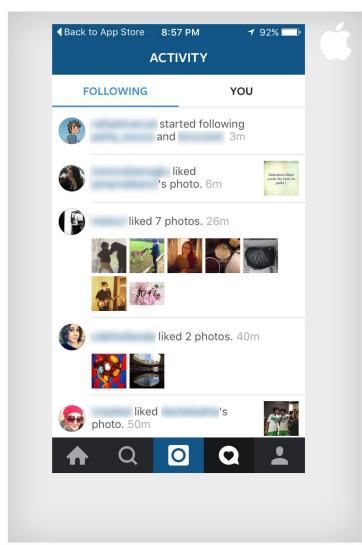


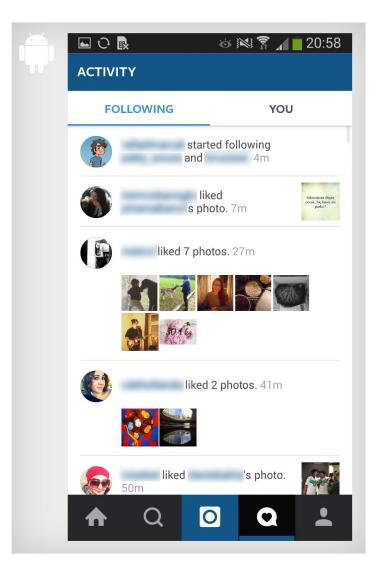






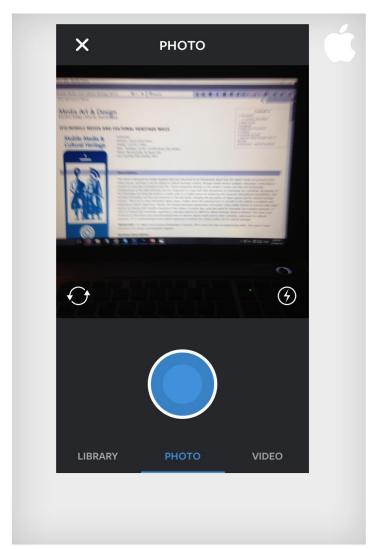


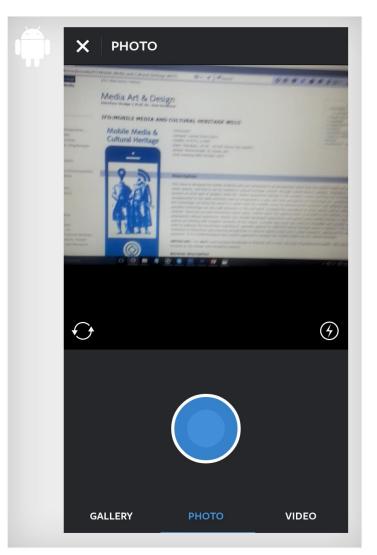




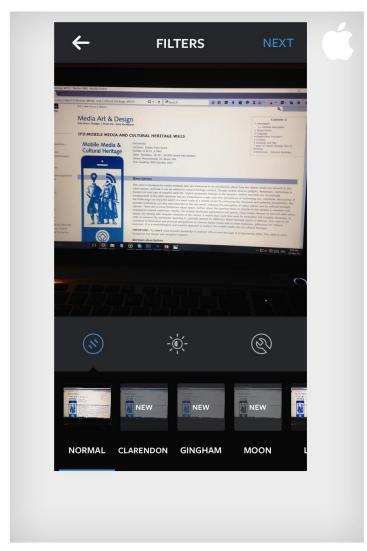
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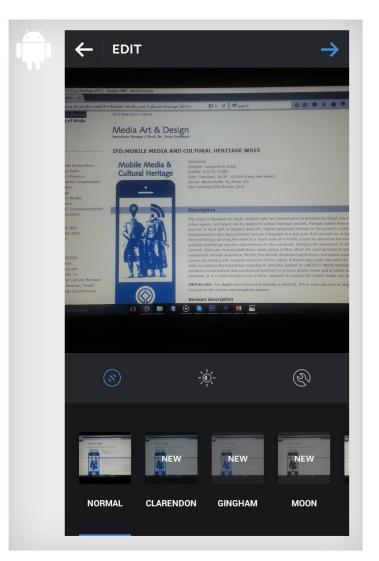




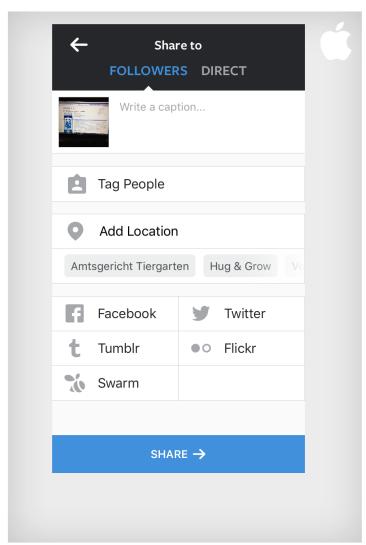


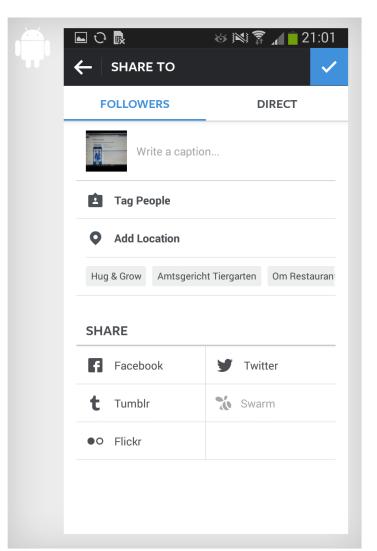




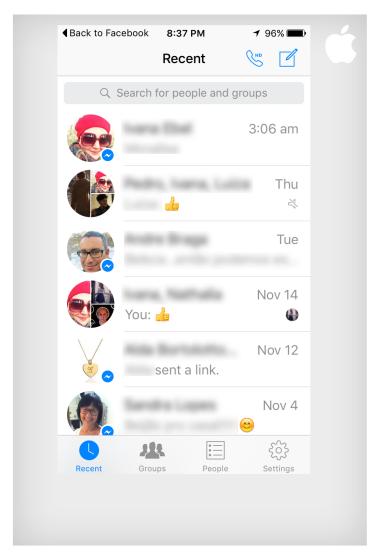


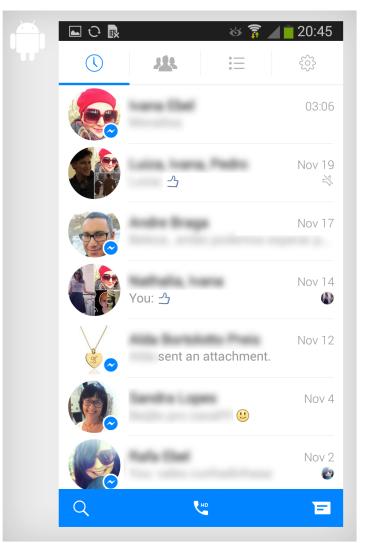






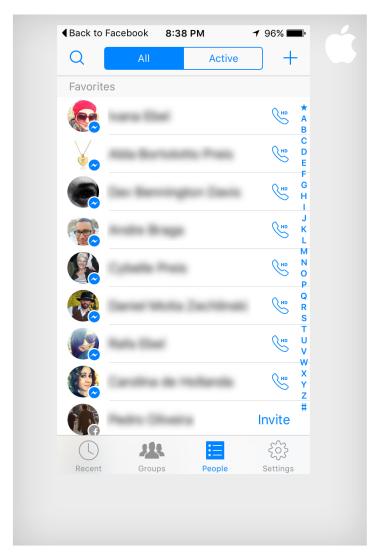
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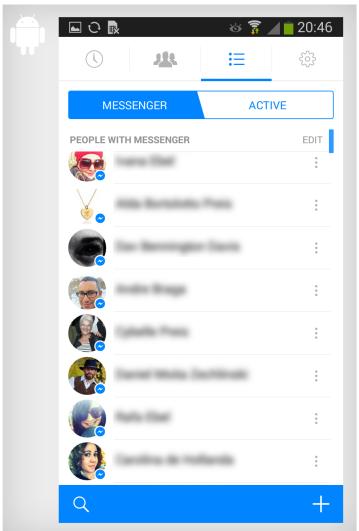




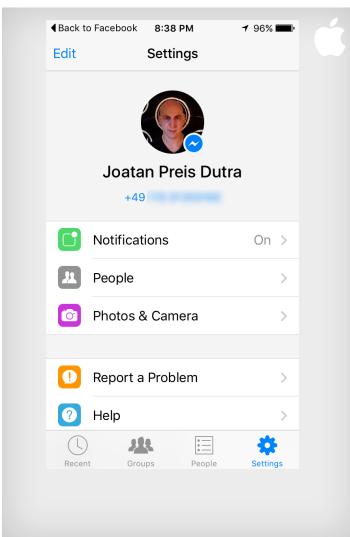


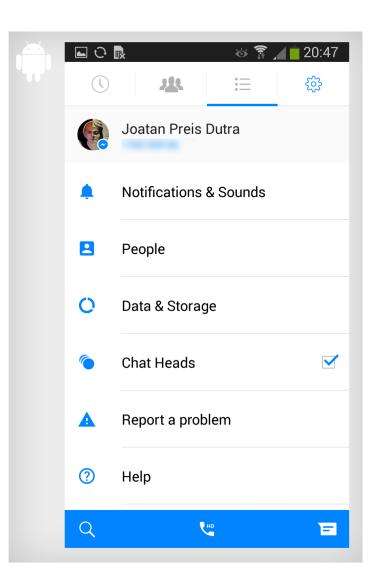
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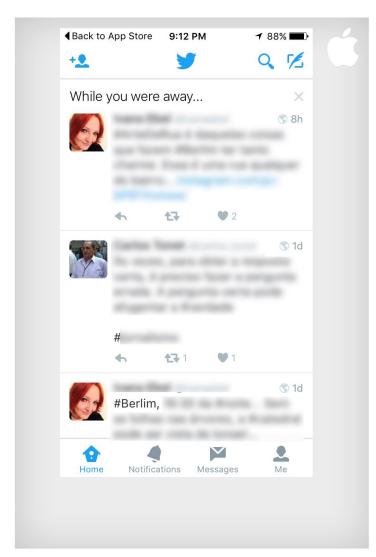


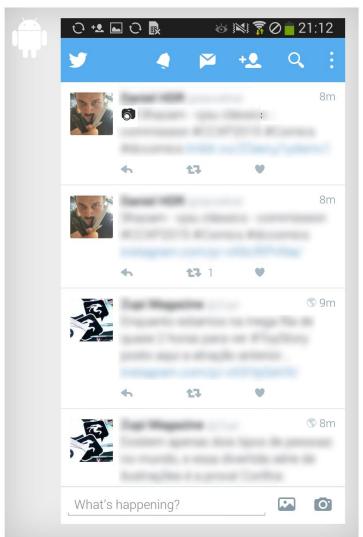
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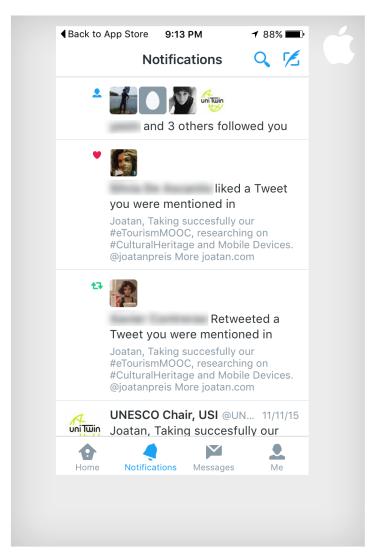


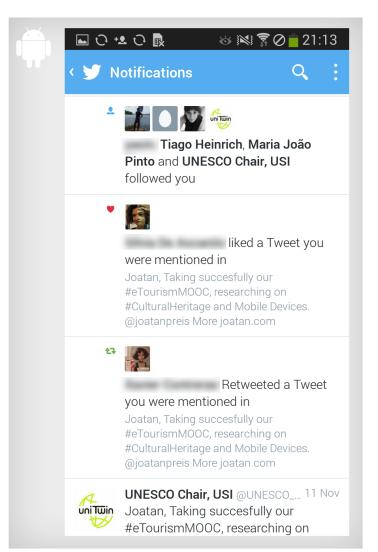




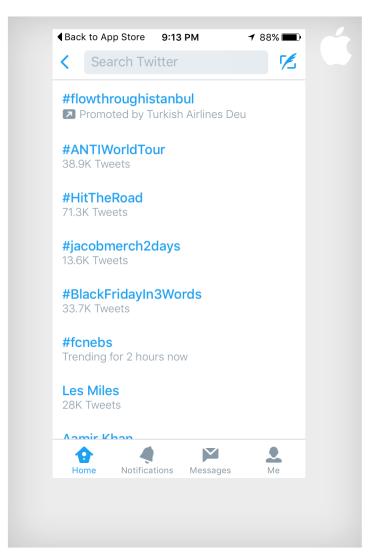


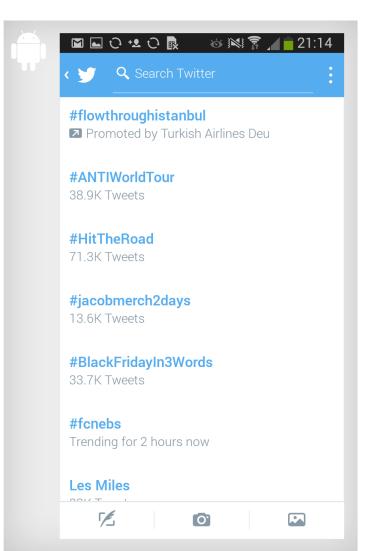






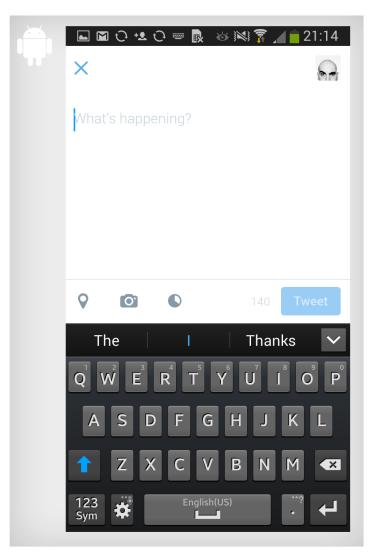






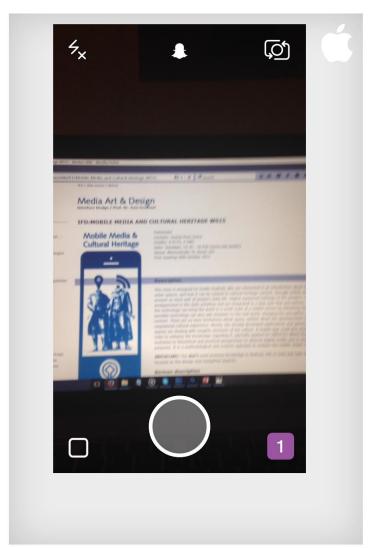








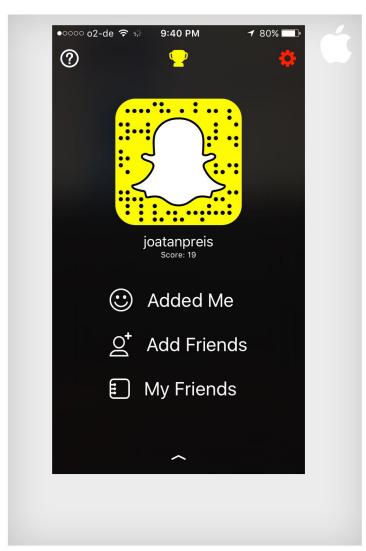
Snapchat





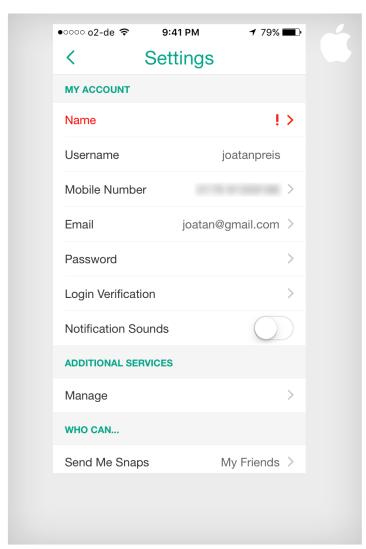


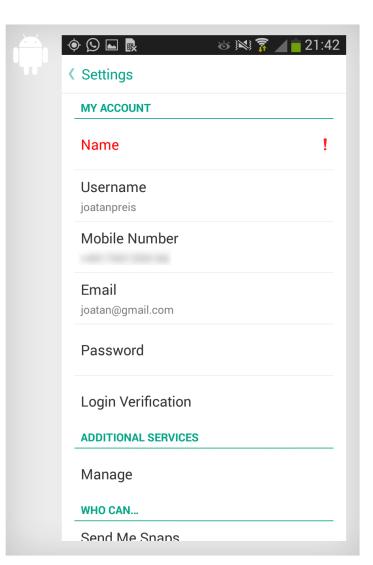
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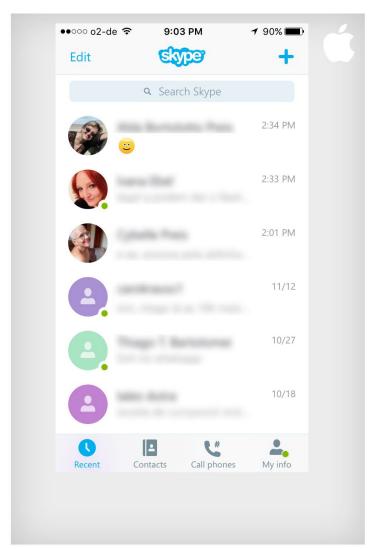


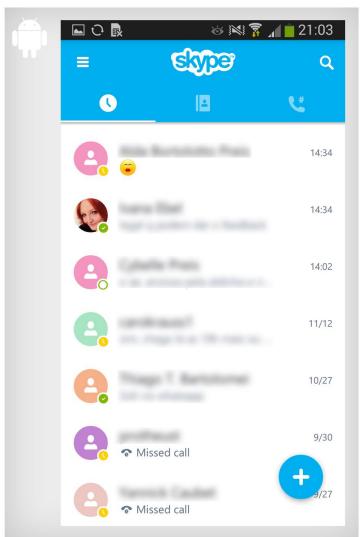




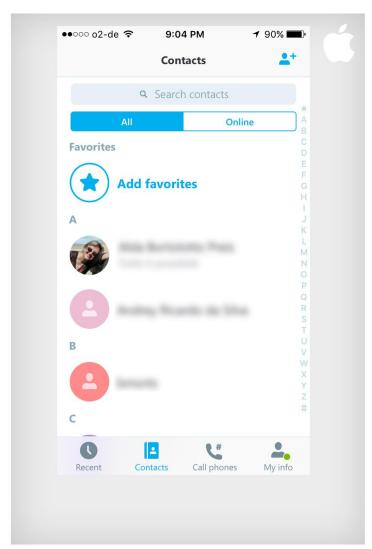


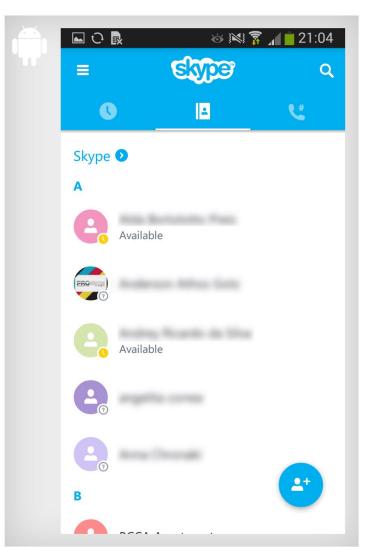




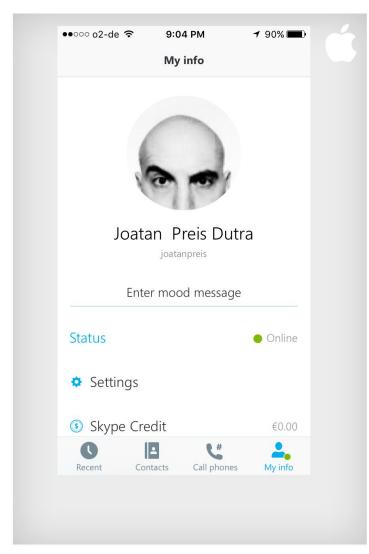


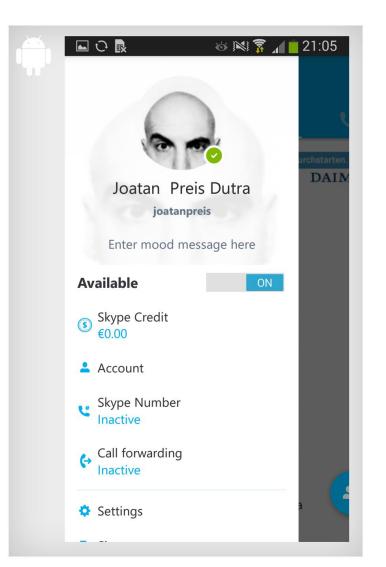




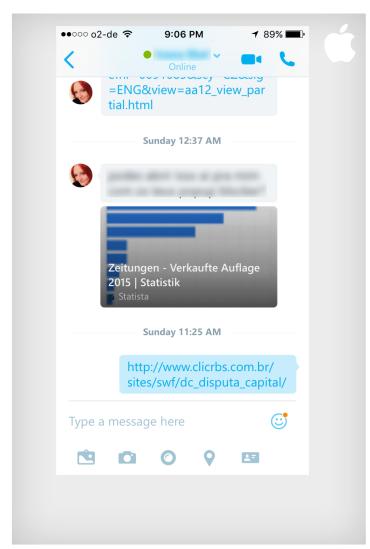


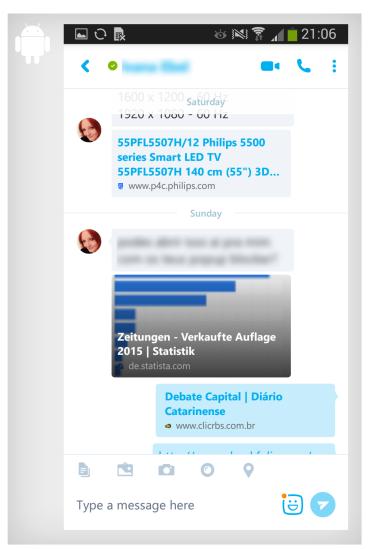




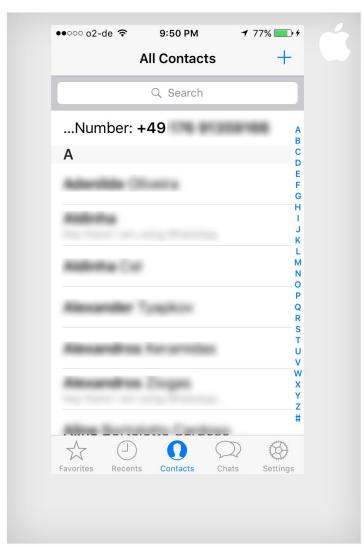


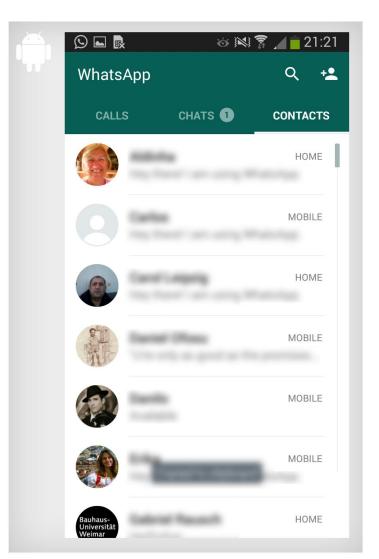






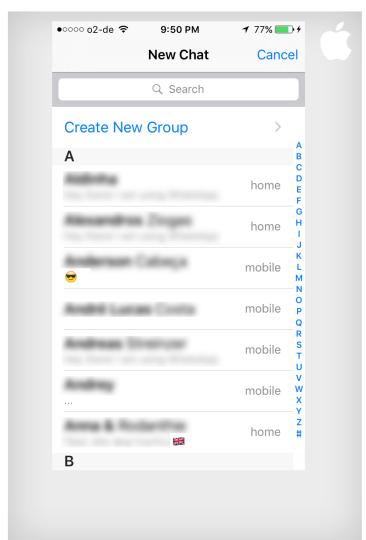


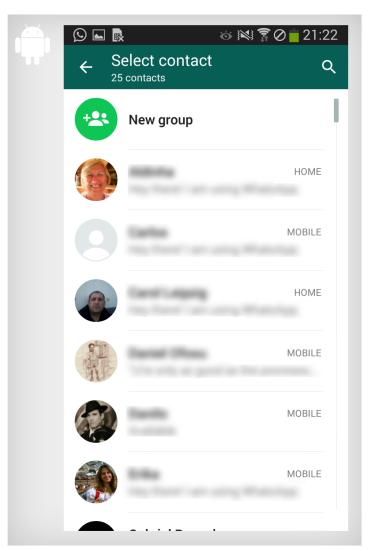




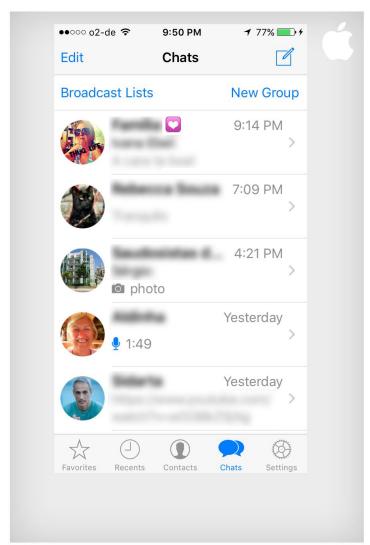
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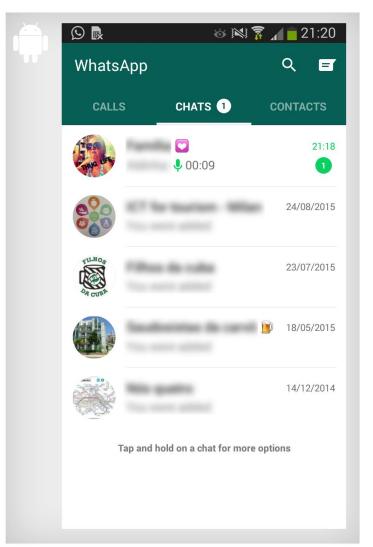


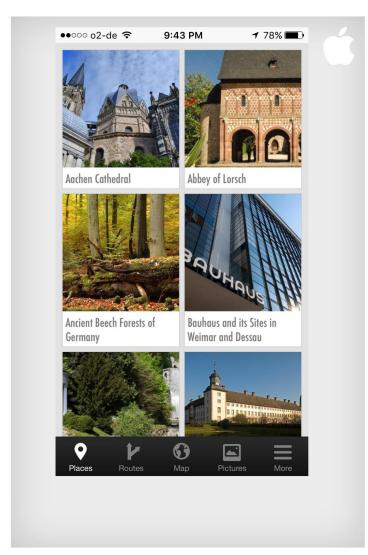


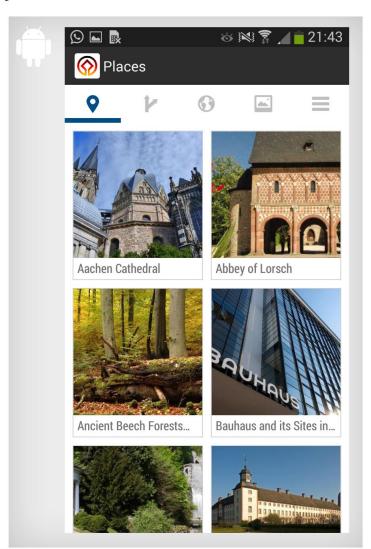




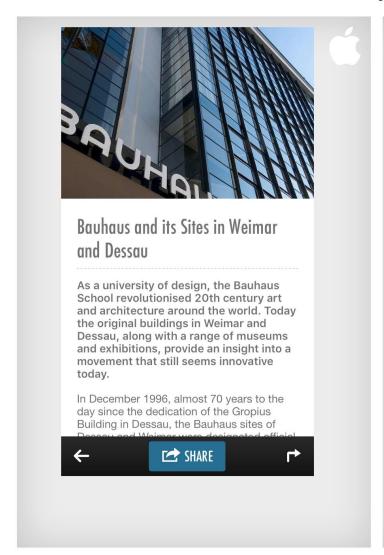


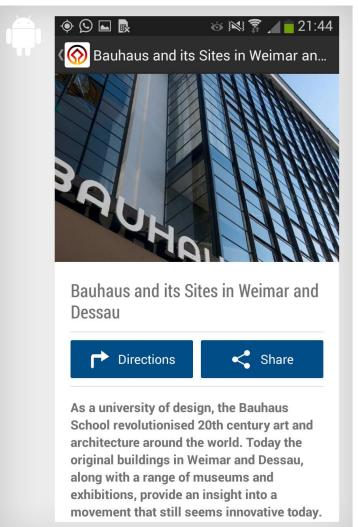




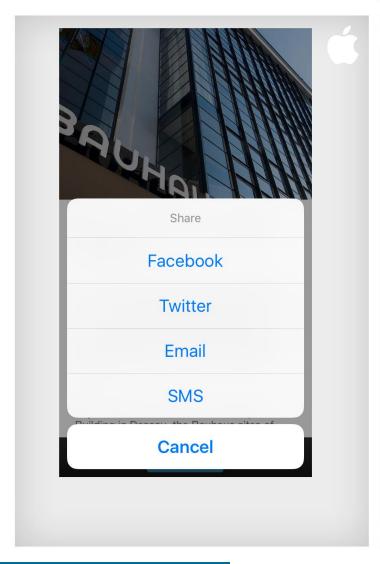


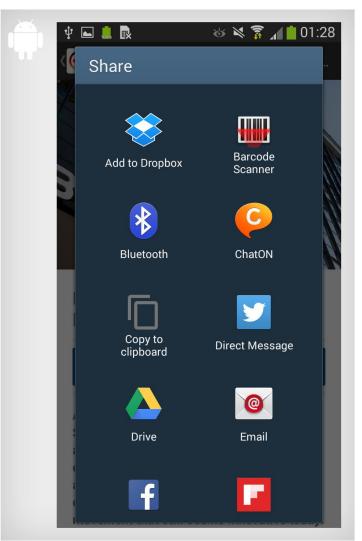




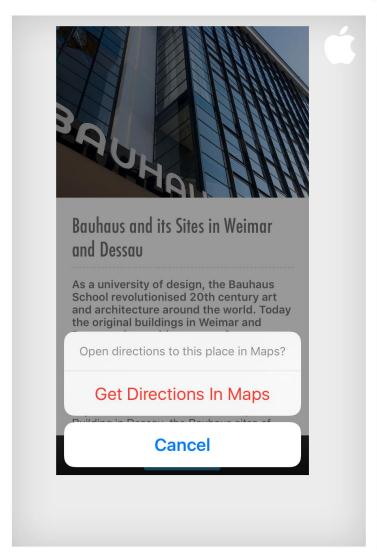


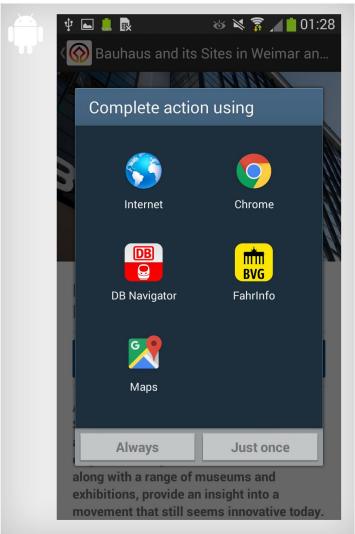






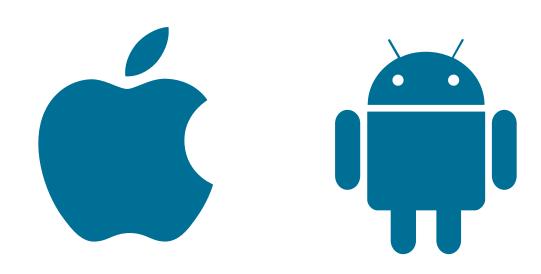






iOS & Android

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



WHS Apps

In Germany

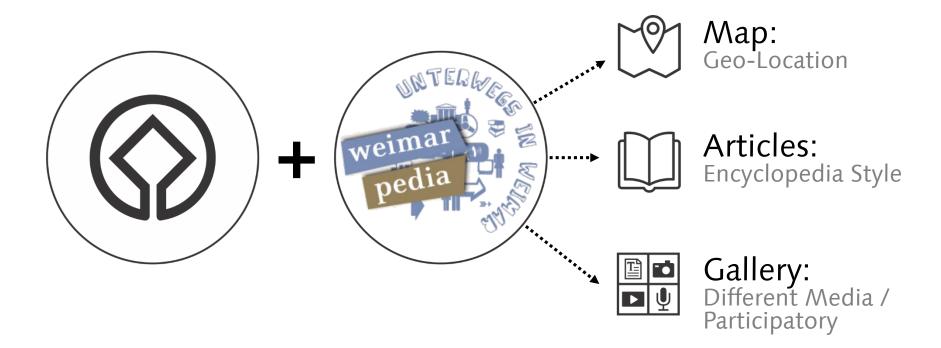
Apps for UNESCO WHS in Germany



21 dedicated Apps for 15 places (of 37)



World Heritage Sites and www.Weimarpedia.de







Welterbe



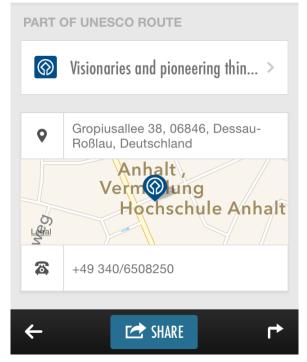
Bauhaus and its Sites in Weimar and Dessau

As a university of design, the Bauhaus School revolutionised 20th century art and architecture around the world. Today the original buildings in Weimar and Dessau, along with a range of museums and exhibitions, provide an insight into a movement that still seems innovative today.

In December 1996, almost 70 years to the day since the dedication of the Gropius

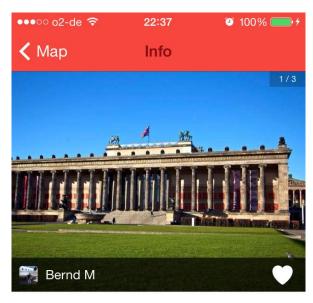


Dessau-Törten estate. In the historical Bauhaus Canteen you can enjoy a generous breakfast or lunch sitting on the Marcel Breuer-designed stools. In the Studio House, former student rooms, some remodelled according to their original design, can be rented as single or double guestrooms.





Berlin Travel Guide *Ulmon*

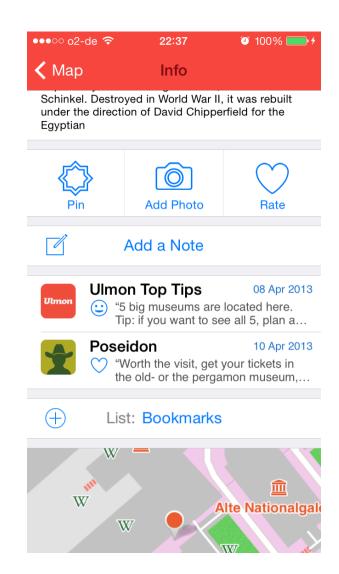


Museumsinsel

Tourist Attraction Mitte, Mitte

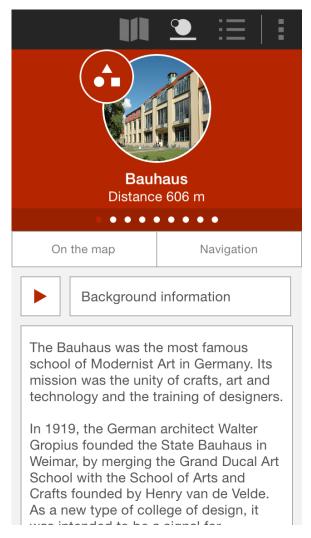
Museum Island (German: Museumsinsel) is the name of the northern half of an island in the Spree river in the central Mitte district of Berlin, Germany, the site of the old city of Cölln. It is so called for the complex of five internationally significant museums, all part of the Berlin State Museums, that occupy the island's northern part:

The Altes Museum (Old Museum) completed on the orders of Karl Friedrich Schinkel in 1830. The Neues Museum (New Museum) finished in 1859 according





The Topograph of Modernism





UNESCO-Welterbe Zollverein App



BauhausGuide





Welterbe









Classical Weimar

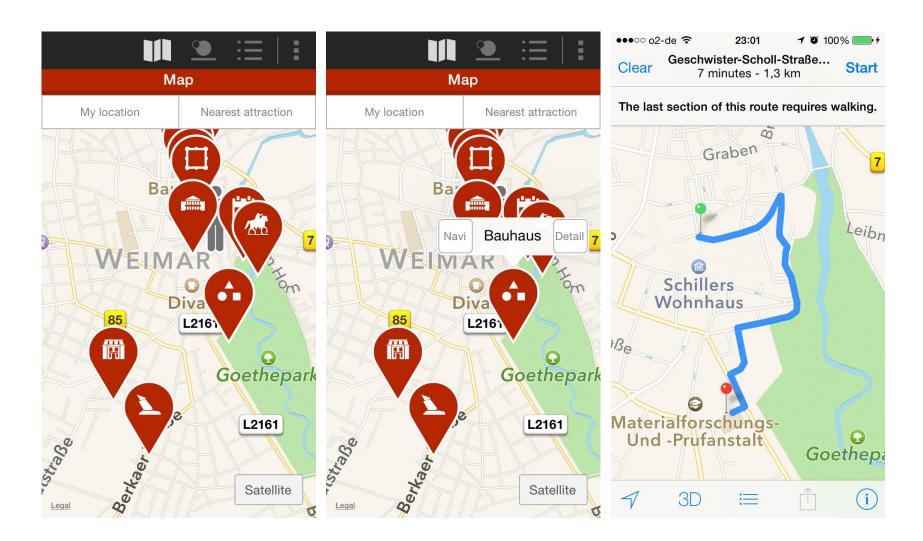
For centuries, Weimar in Thuringia was at the centre of intellectual life in Germany: the city experienced its heyday in the early 19th century when it was home to no fewer than three of Europe's leading intellectuals - Goethe, Schiller and Herder. The Classical Weimar ensemble is testimony to the enlightened, courtly but also civic culture of the period around 1800.

A new era of tolerance, education for the masses and Humanist views: Weimar





The Topograph of Modernism



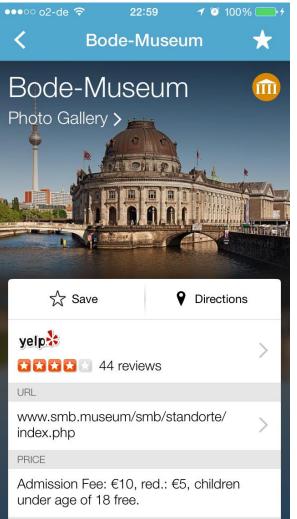
Evaluation Result: Maps



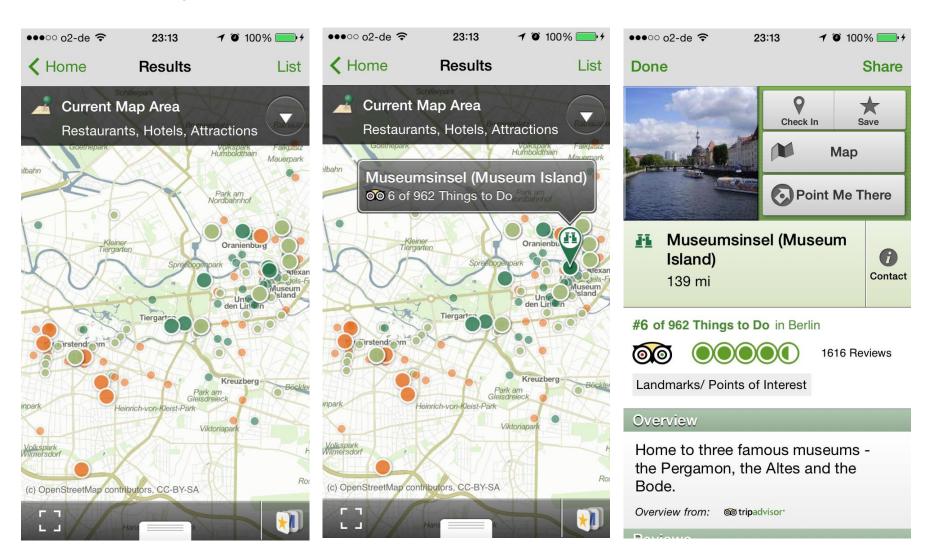
Berlin Travel Guide *Triposo*



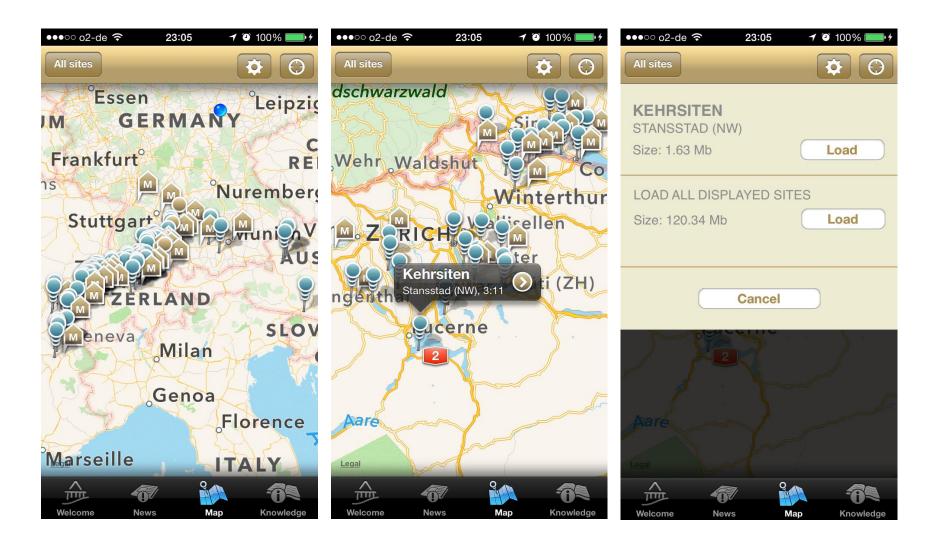


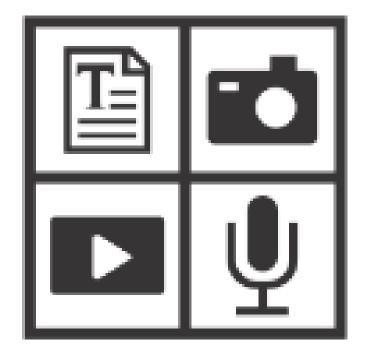


Berlin City Guide *TripAdvisor*



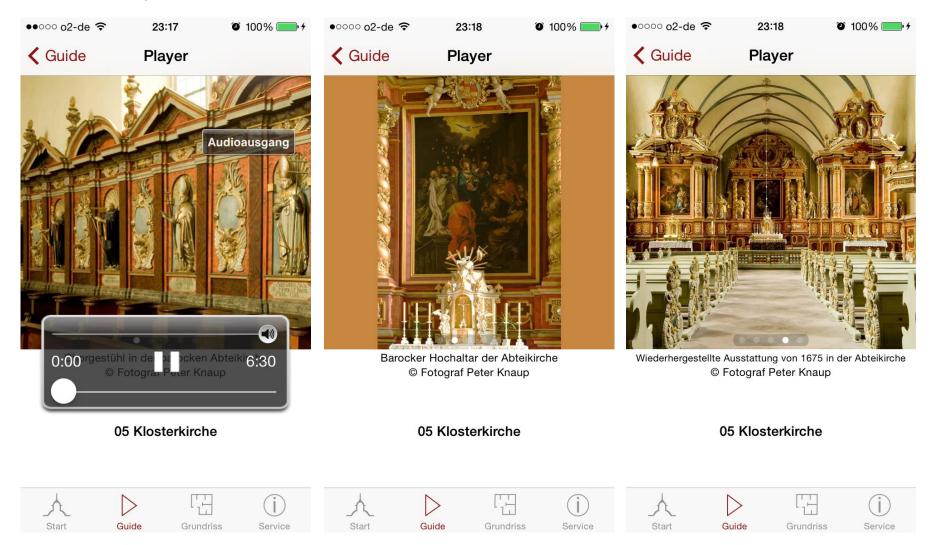
Palafittes Guide







Corvey



Ostsee-App ars publica





Stadtbefestigung mit Kniepertor und Kütertor

Stadtmauer

Die Stralsunder Stadtmauer ist heute noch zu weiten Teilen, besonders zwischen Küter- und Kniepertor, erhalten - teils mit Wiekhäusern und Mauertürmen. In seiner Baugeschichte unterlag sie zahlreichen Veränderungen: Im 13. Jahrhundert wurde ein Palisadenzaun errichtet, der im 14. Jahrhundert durch eine Mauer aus Backsteinen ersetzt wurde und zusammen mit den umliegenden Teichen dem Schutz der Stadt diente. In den 60er Jahren wurde ein Großteil der Mauer mit Wehrgang und Wieckhaus restauriert.

Kniepertor









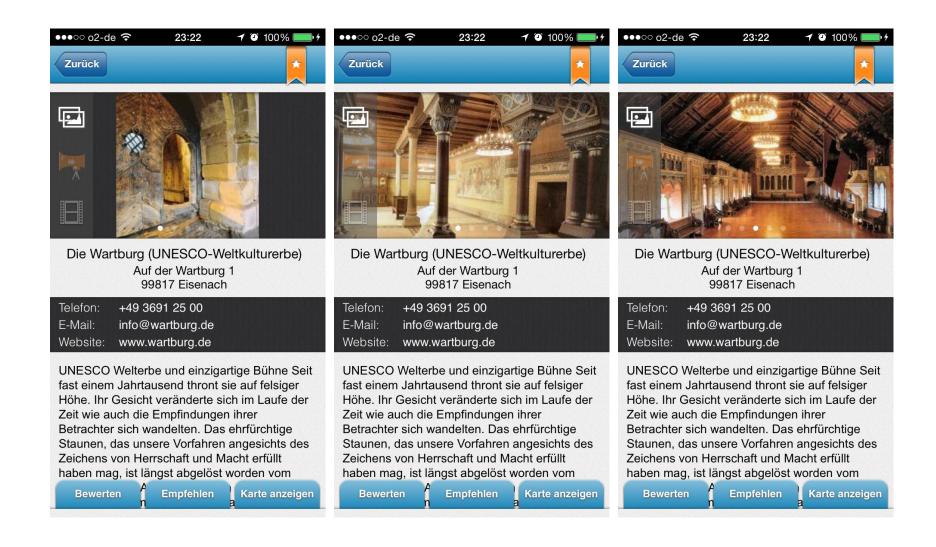


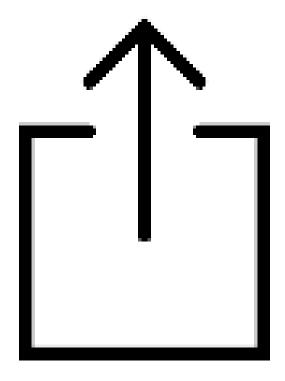




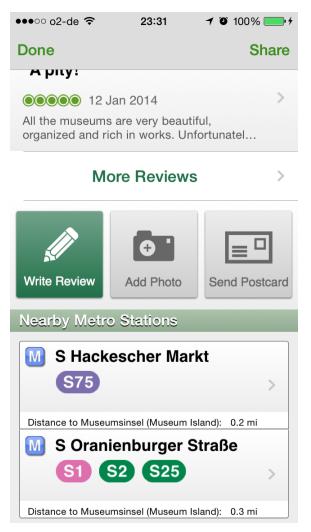
Eisenach CityGuide







Berlin City Guide TripAdvisor





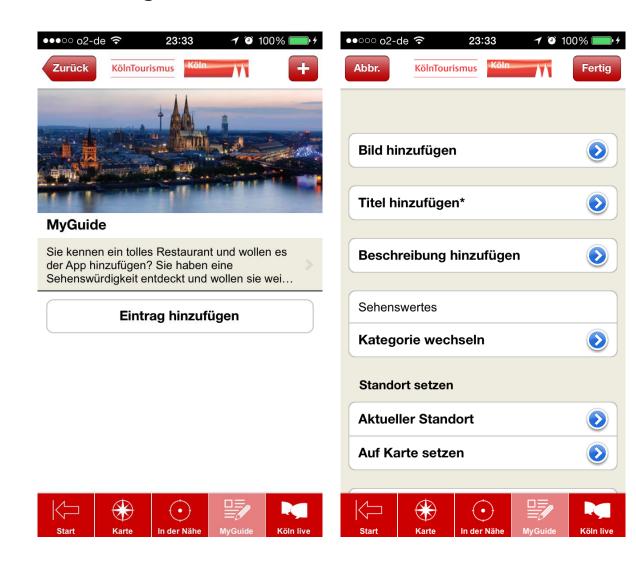


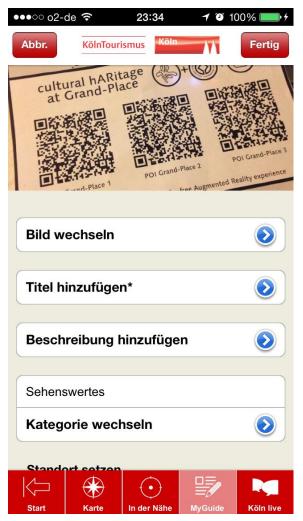
Add a Caption

Submit

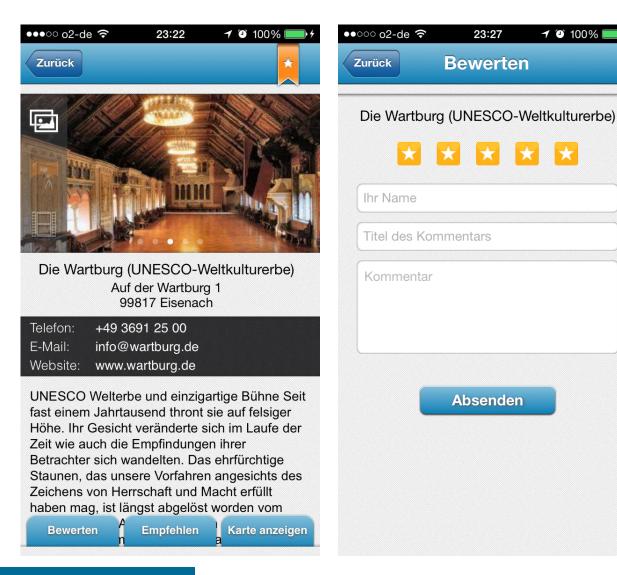


Cologne Guide Tourias

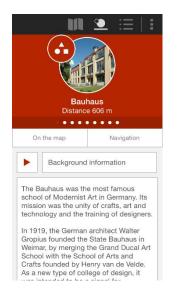




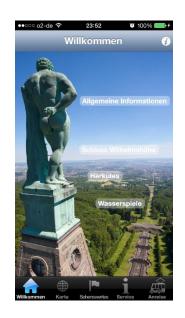
Eisenach CityGuide



Overview: Clicks/Taps

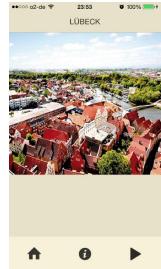














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Quantitavive Evaluation



Commom Features Found:

- Map
 - Map GPS
 - Map Static
- AR
- Photos
- Articles
- Participation
 - P. Review
 - P. Rating
 - P. Upload
- Share
- Audio
- Video
- Nearby
- Links
- Tours

Overview

Tips & Guidelines

Overview



What makes a good example? It can be based on known heuristics principles and UI guidelines from the selected OS (iOS and Android).

There are several heuristics available (Nielsen, Weiss, Nielsen, Gerhardt-Powals, Scheiderman, Weinschenk), and it is a matter to choose which one could be applied better to achieve the desirable results.

User Control and Freedom

- Application has marked exit
- Application support undo and redo
- User can control interaction
- User knows where he is in, where he can go and how he get there in application
- User understands how many steps he will go to reach his goal and his current

Based on Nayebi, F., Desharnais, J.-M., & Abran, A. (2013a). An Expert-Based Framework for Evaluating iOS Application Usability (pp. 147–155). IEEE. http://doi.org/10.1109/IWSM-Mensura.2013.30

Error correction

- When something went wrong, application tells the user: what happened, why it happened and how to fix it
- Required fields are made obvious with visual indications
- Back button/gesture turns to previous view and the data is not lost

Accommodation

- Application speaks user's language
- Relevant metaphors are used when needed
- Interface is suitable for the user's task and skill level

Simplicity

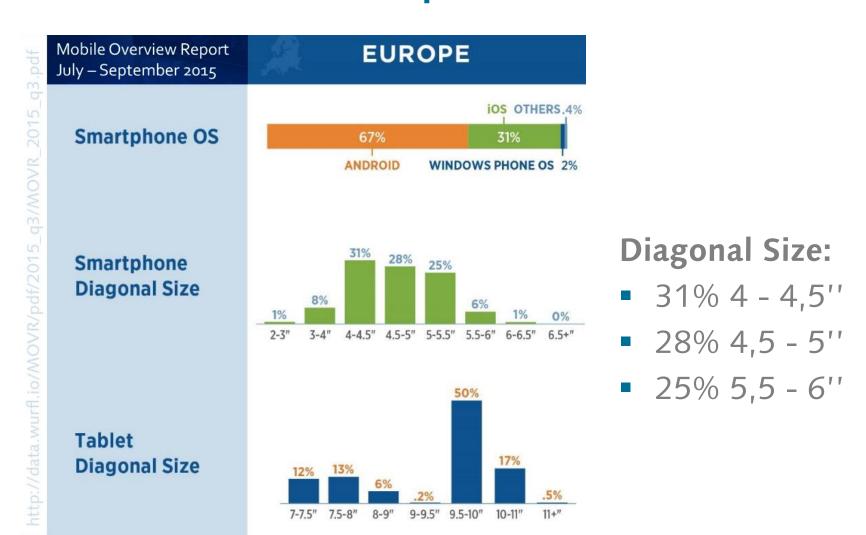
- Minimalist or view what is relevant for the need
- Different colors are used for different purposes
- Size of graphics is considered for response time impact
- Used of colors is limited (3-4)
- Application's purpose is understandable at the first sight

Aesthetics

- Similarity when objects look similar to one another, and can be perceived as part of a group or pattern.
- Continuation when the eye is compelled to move from one object another.
- Closure when an incomplete object or a space that is not completely filled can be perceived by the user as a whole when he adds the missing information.
- Proximity when elements are placed close together, and can be perceived as belonging to a group
- Figure and ground Figures (forms, silhouettes, and shapes) are differentiated from background.

Based on Nayebi, F., Desharnais, J.-M., & Abran, A. (2013a)

Mobile OS in Europe (July - September 2015)



Source: http://data.wurfl.io/MOVR/pdf/2015_q3/MOVR_2015_q3.pdf

Retrieved and Modified from Wroblewski, L. (n.d.). LukeW | Defining Mobile: 4-5.5 Inches, Portrait & One-Thumb. Retrieved November 25, 2015, from http://www.lukew.com/ff/entry.asp?1944

When designing mobile software, we need some clarity. What kind of devices are we talking about and how do people interact with them?

Text entry on a small device can be difficult.

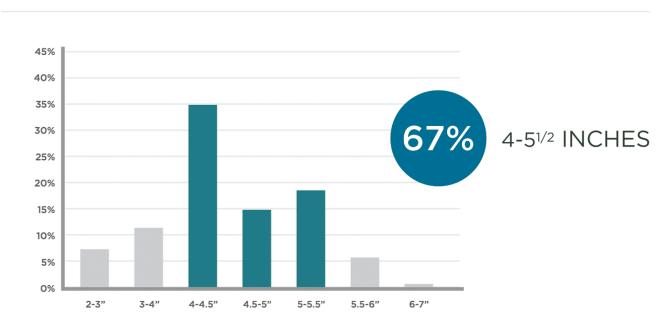
Where possible, and where it is appropriate to the application, the user should be offered a selection option rather than be made to enter text.

Finding the best solution will require both thought and user testing.

Retrieved and Modified from Wroblewski, L. (n.d.).

67% of smartphones range between 4 and 5,5 inches and 94% of the time they're used in portrait orientation. Note this data is based on Web browsing but native app numbers are unlikely to change the majority of use to landscape.

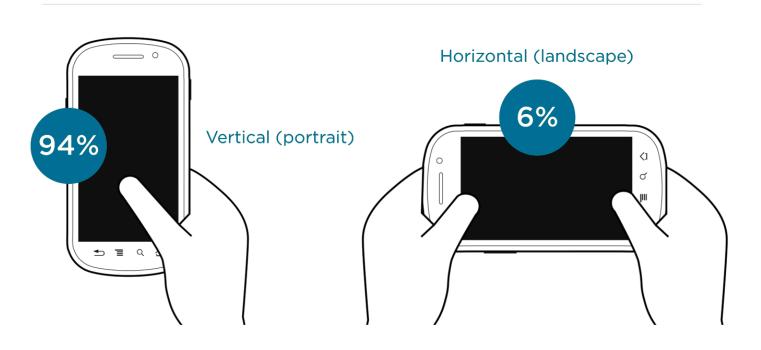
Global Avg. Smartphone Diagonal Size



Retrieved and Modified from Wroblewski, L. (n.d.).

When in landscape mode, most interactions (72%) rely on just one thumb as Steven Hoober's 1,300+ observations of smartphones in use illustrated.

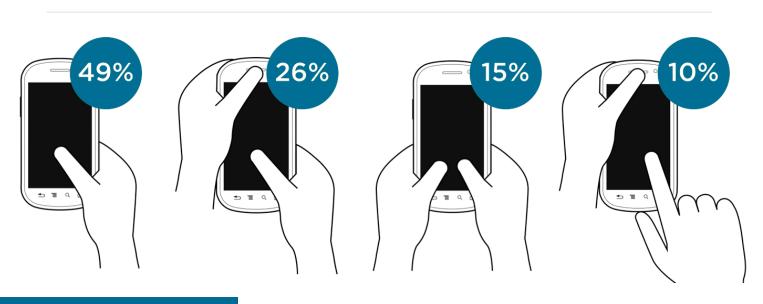
Global Smartphone Orientation



Retrieved and Modified from Wroblewski, L. (n.d.).

So when designing for mobile today, it's worth considering a 4-5,5 inch smartphone, in portrait (vertical) orientation, being used with <u>one-thumb</u>. Of course, there many variants as well but making sure your mobile experiences work well in this context is a great baseline to start from.

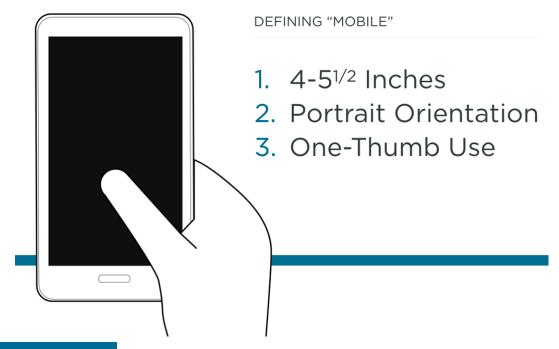
Smartphone Posture



Retrieved and Modified from Wroblewski, L. (n.d.).

A few examples of how this baseline can inform design decisions and testing:

- **Designing for Thumb Flow**
- Testing One-Thumb Mobile Use



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.

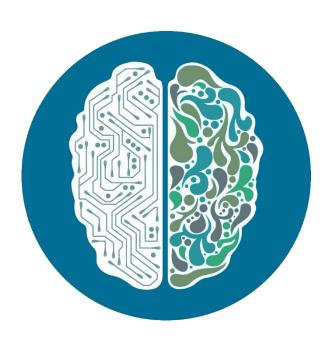
UI Design Guidelines for Handheld Devices

(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

App Project

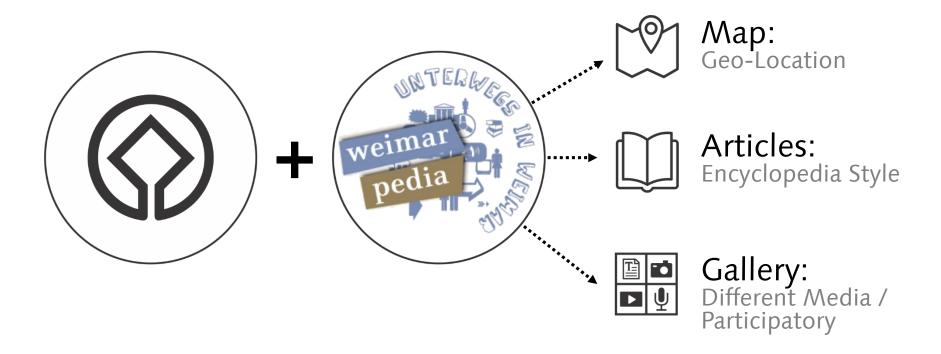
and Target Groups



App Target: Cultural Heritage in Weimar



App Target: Cultural Heritage in Weimar App Content: Weimarpedia.de



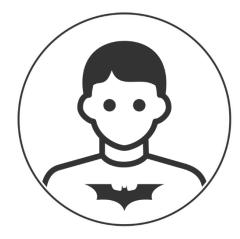
2 Target Groups: Weimarpedia's students and Tourist Visitors





Target Groups: Weimarpedia's students and Tourist Visitors

General age



13-16 years old



- 50-59 years old (26% of visitors)
- 60-69 years old (21% of visitors)

Target Groups:

Weimarpedia's students and Tourist Visitors

General needs when visiting Weimar



- Find P.O.I. and information about a WHS in Weimar
- Research articles inside Weimarpedia.de
- Create content for Weimarpedia (Photo, Video, Text, Audio)



- Find P.O.I. and Information about WHS in Weimar.
- Spend time in Weimar looking for:
 - 94% sightseeing
 - 79% restaurant and cafés
 - 65% museums and exhibitions
 - 35% UNESCO WHS

Target Groups: Presentations

12 January: Target Group - Adults



- Liu Yun & Qianqian Li
- Govienda Kumar & Shahadet Hossain
- Naga Prasanna Kasu & Moitree Chowdhury
- Mohammad Daneshkohan & Revathi Gurumoorthi
- Ibni Amin & Kazi Fakrul Islam
- Mohammad Shamsuddin Arefin & Tahira Sohaib
- Pol Foreman & Ramiah Eshetu
- Md Riazul Islam Khan
- Maria Vanessa Yepes Serna

Target Groups: Presentations

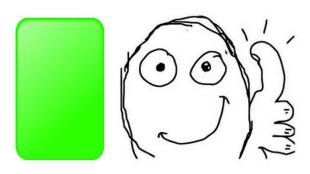
26 January: Target Group - Teenagers



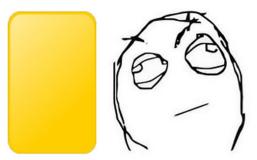
- Yuxin Tan & Xiangzhen Fan
- Alena Smirnova & Yung-Ching Chiu
- Dima Meigari
- Alexander Bondarenko & Camila Geoffroy
- Mana Mazidy & Elham Masoumi
- Saeideh Khorasani Esmaeili & Yao Chen
- Jixiang Jiang & Junyuan Wu
- Emre Ertem & Mohamed Hanafy
- Afroditi Manari & Shubhra Bhatt

Target Groups: Presentations

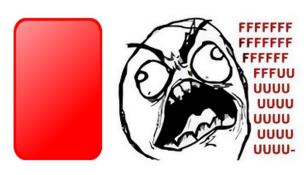
10 minutes per each Group



After 10 minutes: Gets Warning



12 min: Stops Presentation



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Thank You!



Mobile Media & Cultural Heritage

Bauhaus-Universität Weimar

05. Mobile Guidelines





http://tiny.cc/mobilemedia2015

