

Mobile Culture & Urban Spaces

Bauhaus-Universität
Weimar

04. Cultural Heritage

WS2012

Joatan Preis Dutra

Faculty of Media

Chair of Interface Design

joatan.preis.dutra@uni-weimar.de



Summary

1. Cultural Heritage	3
1.1. Organizations	15
2. Preservation	21
3. Workplan & Presentations	26
4. First Presentation - App	29
4.1 Example	36
5. Second Presentation - Prototype	62
5.1 Platforms	69
6. References	84



Cultural Heritage

Elements and Preservation



Cultural Heritage

What is Cultural Heritage?

- *“Cultural heritage (...) is the legacy of physical artifacts (cultural property) and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations”. (“Cultural heritage - Wikipedia, the free encyclopedia,” n.d.)*

Cultural Heritage

It is far behind the time when, in order to enjoy a historical and cultural experience, it was necessary to visit a museum or to buy a guide to check the information about the monuments and historical buildings in a city.

Despite the importance of these institutions and options, the technology allows the expansion of the concept one step further, and the cities itself can be considered open air museums.

Cultural Heritage

The spread and importance of mobile devices on every-day activities is well known, but its use for cultural preservation it is still not clear, from the effectiveness perspective.

The tangible and intangible elements of cultural heritage can be explored on two ways: from the heritage-source (as a museum) to the user, and from the user providing content for the heritage-source.

Cultural Heritage

The mobile devices have an important role in the society.

- *“[m]ost of the current communication processes are based on the use of mobile devices. Some of the most used are tablet pc, pocket pc, smart-phone, PDA (Personal Digital Assistant), and iPod. (...) Adapting the power of these technologies to the field of cultural heritage, allows the broadcast of local heritage to a worldwide level”* (Cutrí, Naccarato, & Pantano, 2008, p. 440).

Cultural Heritage

The mobile devices have already supplanted the preference of the users as interface to check the latest news (Indvik, 2010), but its use as an entertainment tool or even as a personal educational device are still incipient.

Cultural Heritage

If in one hand the technology can bring the world in a small scale of a mobile screen by enhancing the museums and galleries possibilities, in other hand the portable technology can add elements to the real world, changing the perception and turning the entire city into an open-air museum. There are no more limitations about space, neither about the opening hours to provide to the visitors a complete and empowered cultural experience.

Cultural Heritage

Some aspects about the culture preservation should be considered:

- *"There are many issues in the presentation of culture. One is the definition of culture itself, the second issue is to understand how culture is transmitted, and the third is how to transmit this cultural knowledge to people from another culture. In the case of virtual heritage, a fourth also arises, exactly how could this specific cultural knowledge be transmitted digitally?"*

(Champion, 2011, p. 131).

Cultural Heritage

There are, in essence, two aspects of the cultural heritage to be preserved: the **tangible** and the **intangible** elements.

Cultural Heritage

The **tangible** one could be divided in “Immovable heritage” – being land or land-based resources, such as buildings;



Cultural Heritage

and “Movable heritage”, touchable resources that can be detachable and transported from one place to another, as objects, documents, etc.

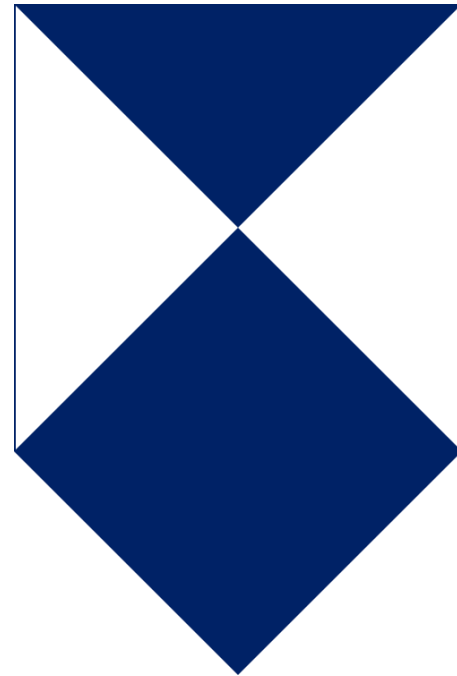


Cultural Heritage

The **intangible** heritage is the non-material elements, such as culture, stories, language, dance, etc. (Ontario - Ministry of Municipal Affairs and Housing, n.d.).



Cultural Heritage: Organizations



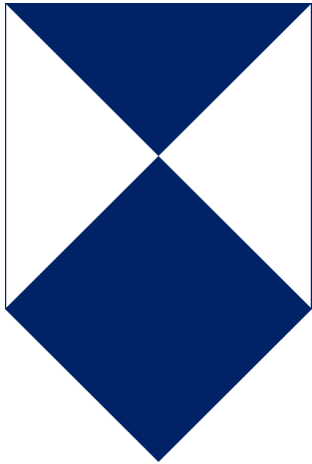
Cultural Heritage: Organizations



- *"The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity. This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage , adopted by UNESCO in 1972".*

("UNESCO World Heritage Centre - World Heritage," n.d.)

Cultural Heritage: Organizations



- *"The Blue Shield is the cultural equivalent of the Red Cross. It is the protective emblem specified in the 1954 Hague Convention (Convention for the Protection of Cultural Property in the Event of Armed Conflict) for marking cultural sites to give them protection from attack in the event of armed conflict. The Blue Shield network consists of organizations dealing with museums, archives, audiovisual supports, libraries, as well as monuments and sites".*
(*"About The Blue Shield," n.d.*)

Cultural Heritage



Cultural Heritage

Mostly, the already developed applications and games using mobile devices to interact with urban spaces are dealing with the tangible elements of the culture. A mobile applicability could work for intangible and tangible elements, in order to enhance the knowledge regarding it

(Champion, 2011, pp. 130-131).

Cultural Heritage

So far, it is also important to point the wide range of different digital applications available (Laurillard apud Pachler, Bachmair, Cook, & Kress, 2009, p. 309), plus social and shared networks as YouTube, Twitter, etc. that could be used for heritage preservation's purposes.

Preservation

of Culture



Preservation

The dynamics and the relations among the cultural heritage promoters and the users through the mobile devices can be analyze as a two ways avenue were the information is floating.

Preservation

- First, it is possible to observe the museums (or any other source of heritage content) using mobile devices to achieve the public and content production;



Preservation

- Second, how the public can use their mobile devices to collaborate with the preservation of the intangible cultural values.



Preservation

Considering this scenario, there are some questions already formulated about this matter:

- From a theoretical perspective, are the mobile devices **being helpful** on the **cultural preservation** of tangible and intangible elements?
- Which are the already developed **successful cases** in the cultural heritage scenario and **how effective** they are?
- Which **technologies** can be traced as **common sense** on the already adopted applications and which other resources are available to deal with the user experience with the cultural heritage information?
- In which ways, the use of **collaborative** technologies can magnify the content **production**, preserving the intangible elements of culture, from the **user** perspective?

Workplan and Presentations

What is expected from the
assignments



Workplan and Presentations

1. Presentation
Mobile App



15%

2. Presentation
Prototype



40%

3. Short Paper



40%

Workplan and Presentations

OCTOBER						
M	T	W	T	F	S	S
01	02	03	04	05	06	07
08	09	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER						
M	T	W	T	F	S	S
			01	02	03	04
05	06	07	08	09	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER						
M	T	W	T	F	S	S
						01 02
03	04	05	06	07	08	09
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JANUARY						
M	T	W	T	F	S	S
	01	02	03	04	05	06
07	08	09	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY						
M	T	W	T	F	S	S
				01	02	03
04	05	06	07	08	09	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

- 1. Presentation Mobile App
- 2. Presentation Prototype
- 3. Short Paper Deadline

1st Presentation - Mobile App

How it can be done



1st Presentation – Mobile App

**Mobile applications for cultural purposes
– around 5 min presentation**



1st Presentation – Mobile App

When it is not possible, the evaluation **could** be based on the developers information. The presentation should be a short slide collection, with a description of the application, contextualizing it, plus the application screens, pointing the suggested observed points.

1st Presentation – Mobile App

What should be analyzed?

- What is the relation of this app with cultural purposes.
- How it interacts with the environment / urban spaces (if so).
- How (or if) the user can interact or contribute with the content.
- How the user can navigate in it, how many screen him/her should press to get the desirable content.
- What is your impression about this app and why you would recommend it.
- What are the technical background (OS, Resolution, availability, etc.) and requirements?

1st Presentation – Mobile App

Mandatory Table of Analysis

- App's Name + Version
- Type (Museum, Guide, Travel, Game, etc)
- Operational System (OS)
(Android, iOS, Windows, Web)
- Minimum screen-resolution required
- Minimum OS version required
- Native or Web-app
- Free or Paid (and how much)
- Where it is Available
(URL or market link)

1st Presentation – Mobile App

Slides in a PDF format should be delivered electronically until 23:59h of the day before the respective presentation, by e-mail.

Have in mind that if you cannot install and use this app, be sure that you can get all those information mentioned before from the publishers or someone else (i.e.: a friend who can install and play with it).

1st Presentation – Mobile App

On next slides there is an example about how the presentation can be done (StreetDroids):



What is "StreetDroids"?

What it is?



- StreetDroids is a context-aware mobile game, where users/players can contribute to its expansion through missions on different games scenarios (including cultural purposes), taking place in the real environment.



How does the game work?



- Outdoor scenario: GPS based location
- Play and explore the city
- Treasure hunters style
- Based on missions, maps, puzzles and hints
- You can create your own content



What is the relation of this app with cultural purposes?

Cultural Aspects



- This game has several adventure-maps, with several topics
- One of them is a historic one, based on the old city of Bremen in the Hanseatic time.



How it interacts with the environment /
urban spaces?

Interaction with the city



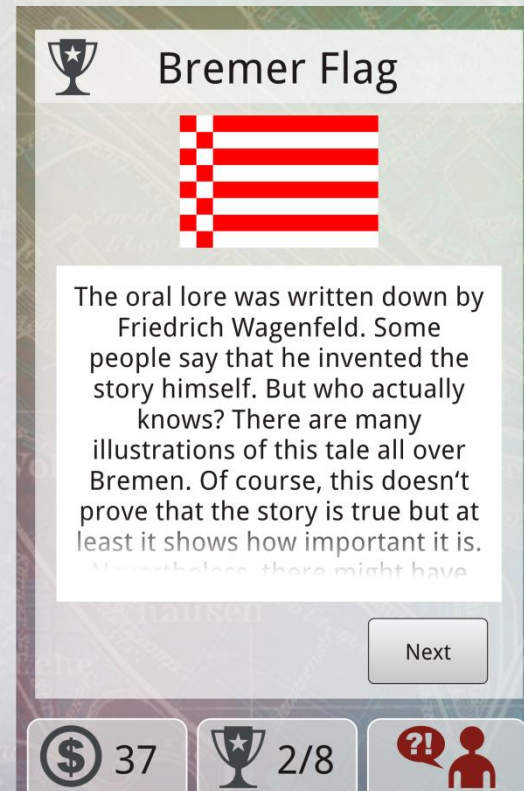
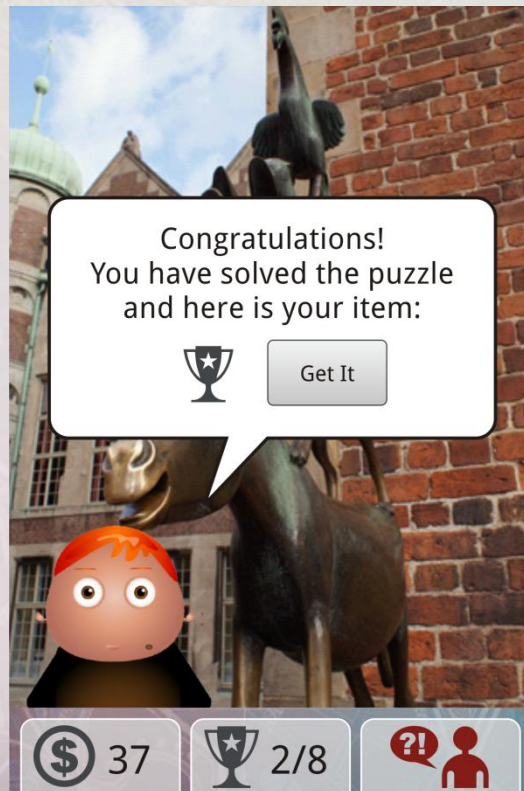
- This is a context-aware game, based on GPS.
- The user can interact with real objects placed on the city, such as statues, monuments and historical buildings.
- By playing a map, the user should collect items in the city, as a hunter game by solving puzzles.



Interaction with the city



- after solving a puzzle the user collects a historical item with its respective content.



How the user can interact or contribute
with the content?

Contribution



- The user can contribute with the game by creating their own maps and adventures.
- The topics are quite open



Contribution



- There is a web-editor available at www.streetdroids.com



Contribution



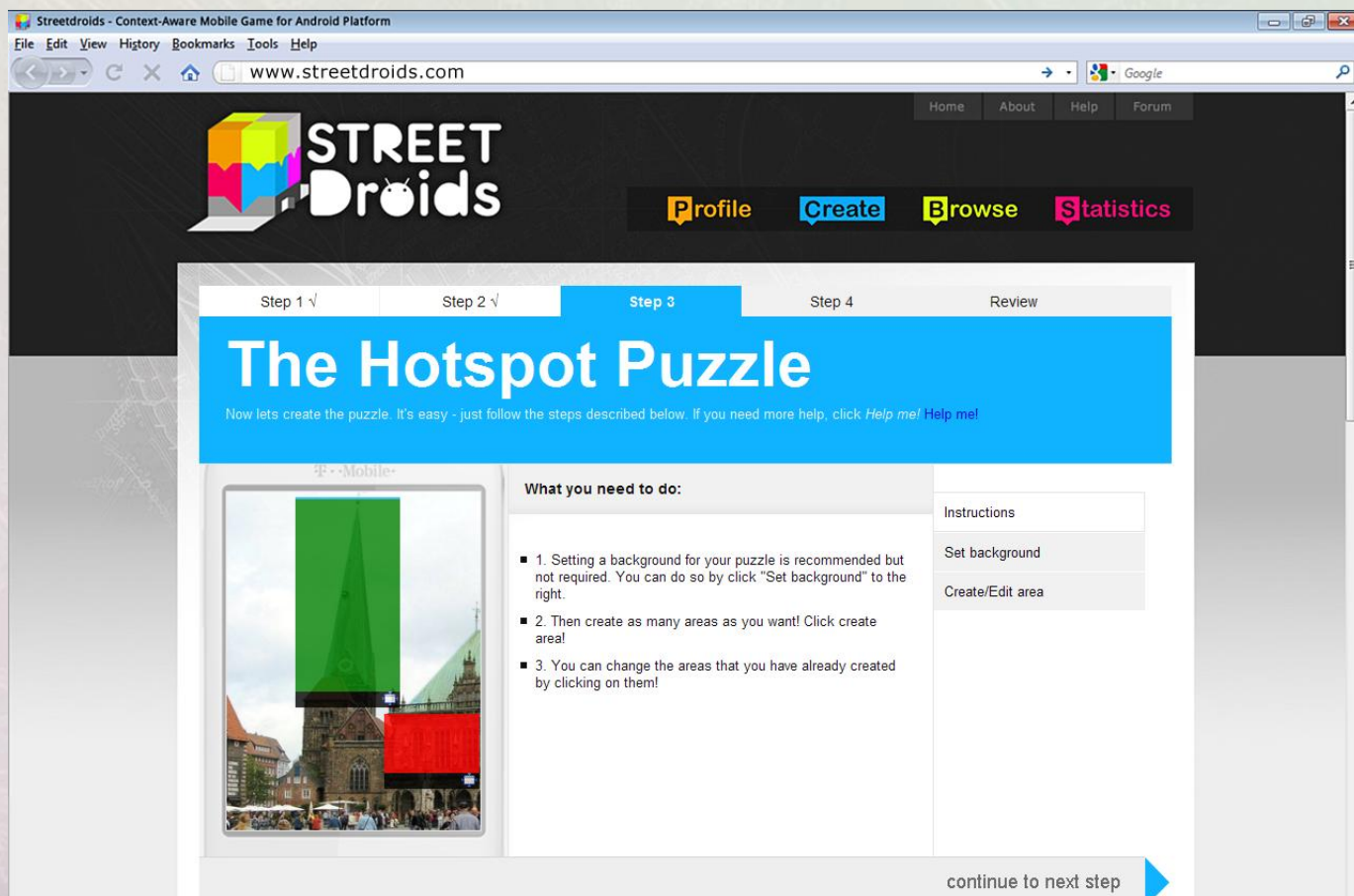
- The user can create their own maps

A screenshot of a web browser displaying the STREET Droids website. The browser's address bar shows "www.streetdroids.com". The website has a dark header with the STREET Droids logo and navigation links: Home, About, Help, Forum. Below the header, there are four buttons: Profile, Create, Browse, and Statistics. The main content area is titled "Location" and is part of a multi-step process (Step 1, Step 2, Step 3, Step 4, Review). The "Location" step includes a map of a city (Bremen) with a red pin and a blue circle indicating a location. Text on the page says: "Streetdroids is an outdoor game, so your puzzle probably takes place somewhere in the real world. In this step you can tell us exactly where! Just use the map below! [Help me!](#)". To the right of the map, there is a text box with instructions: "Doubleclick on the map to add this point as the location of your puzzle. Drag the outer marker to change the radius, or click and drag the individual corner-points to change the shape". Below the map, there is a text input field and a "find" button. The footer of the page says "Then, write some words that will help the player find the location".

Contribution



- The user can edit their own puzzles



Contribution

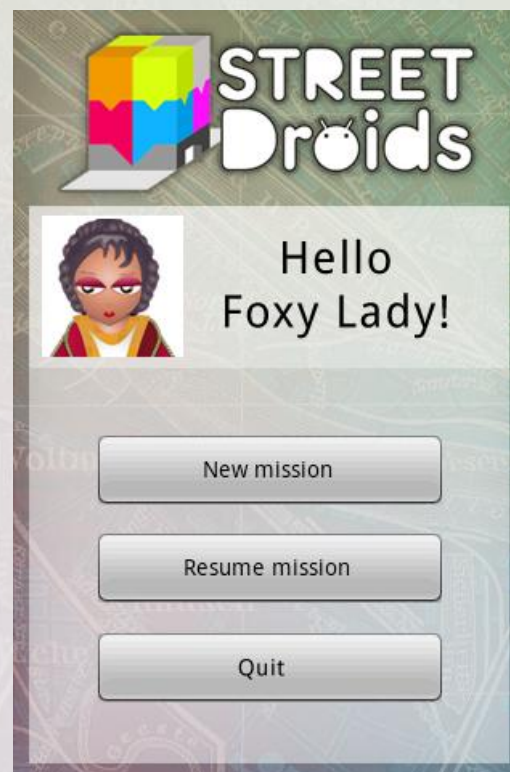


- The user can create their own characters



How the user can navigate in it, how many screens him/her should press to get the desirable content

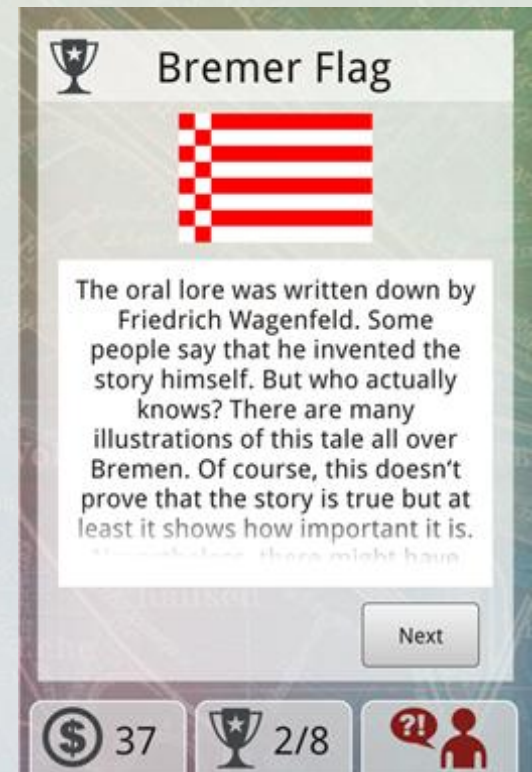
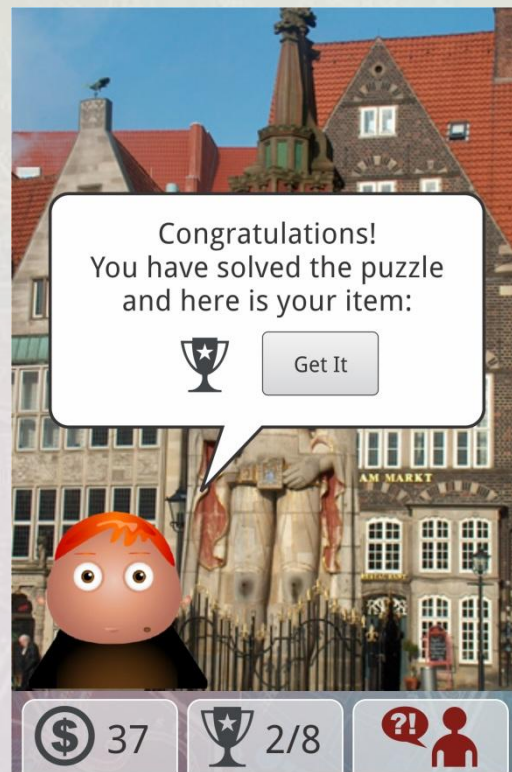
Playability



Playability



Playability



Video demonstration



What are the technical background
(OS, Resolution, availability, etc.) and
requirements?

- This game was developed for Android Platform.
- The chosen device was "T-Mobile G1", one of the first Android phones.
- The screen resolution is 320 x 480

ANDROID



- This game was available for download directly from the website www.streetdroids.com
- Since 2011, this app is deactivated and unavailable for download

ANDROID



* Mandatory Table



Items	Answer
App's Name + Version	StreetDroids v2.0
Type (Museum, Guide, Travel, Game, etc)	Context-Aware Game
Operational System (OS) (Android, iOS, Windows, Web)	Android
Minimum screen-resolution required	Fixed on 320 x 480 (T-Mobile G1 device)
Minimum OS version required	Android 1.5 Cupcake
Native or Web-app	Native
Free or Paid (and how much)	Free
Where it is Available (URL or market link)	It was available at www.streetdroids.com , but since 2011 it is unavailable

The end



Web-Tools



Content



Exchange

1st Presentation – Mobile App

Who will present first?

- 15.11.2012 = 12 presentations
- 22.11.2012 = 13 presentations

2nd Presentation - Mobile Prototype

How it can be done



2nd Presentation – Mobile Prototype

Mobile applications for cultural purposes
- 15 to 20 min presentation



2nd Presentation – Mobile Prototype

Each student should present a conceptual prototype, developed for mobile devices, for cultural purposes.

It is encouraged to be developed using the weimarpedia.de content, but not restricted to.

2nd Presentation – Mobile Prototype

Another possibility is to analyze an existing mobile app for cultural purposes, and propose a new conceptual model inspired on it.

For the conceptual model is expected to show, at least, one complete feature navigation, instead of just a “welcome screen”.

2nd Presentation – Mobile Prototype

The student should provide the entire mock-up for accessing a functionality.

For instance, if the user wants to select a feature from the welcome screen, which steps (and how many “buttons” should be pressed) until achieve the desired information.

2nd Presentation – Mobile Prototype



2nd Presentation – Mobile Prototype

It is expected for this exercise the use of HCI and design guidelines for the interface design and navigation. For instance, following the guidelines developed for iOS-Apple or Android or Windows platforms (according to the students' choice).

2nd Presentation – Platforms

Native



WebApp



2nd Presentation – Platforms: iOS



iOS – Apple:
iPhone & iPad

2nd Presentation – Platforms: iOS



iPhone 4
640×960



iPhone 4S
640×960

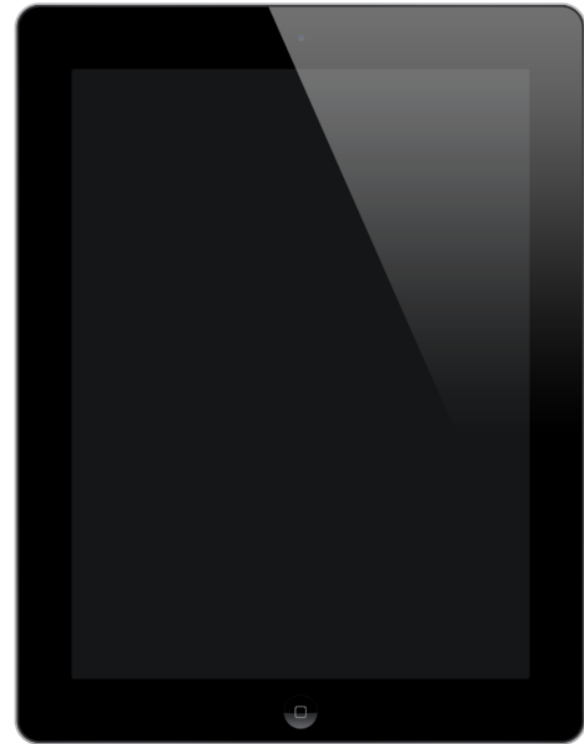


iPhone 5
640×1.136

2nd Presentation – Platforms: iOS



iPad 1 & 2
1.024 × 768

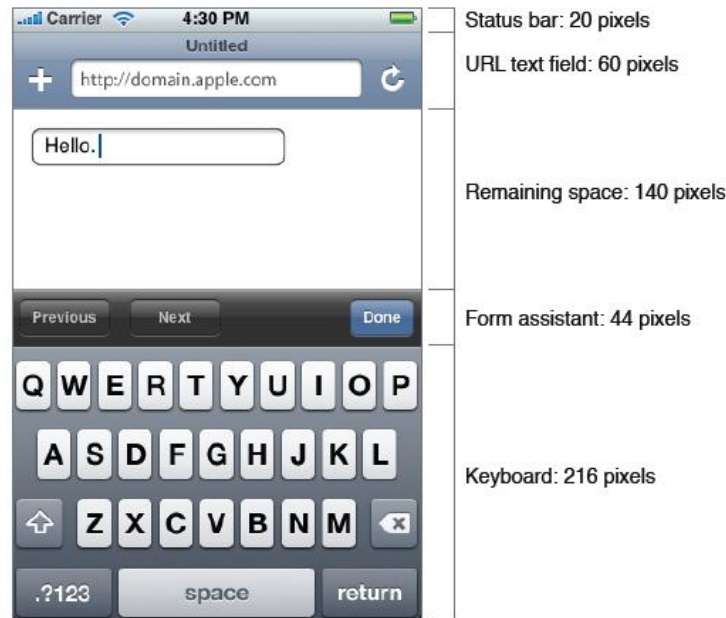


iPad 3 & 4
2.048 × 1.536

2nd Presentation – Platforms: iOS

iOS Human Interface Guidelines

- <http://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/MobileHIG.pdf>
- <http://developer.apple.com/library/ios/#DOCUMENTATION/UserExperience/Conceptual/MobileHIG/Introduction/Introduction.html>



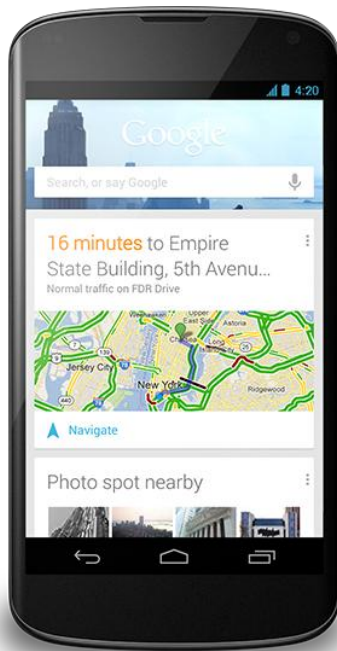
2nd Presentation – Platforms: Android



ANDROID

Android - Google

2nd Presentation – Platforms: Android



LG Nexus 4
1.280×768



Samsung S II
480x800



Samsung S III
1.280x720

2nd Presentation – Platforms: Android



Samsung Galaxy Tab 10.1
1.280 × 800

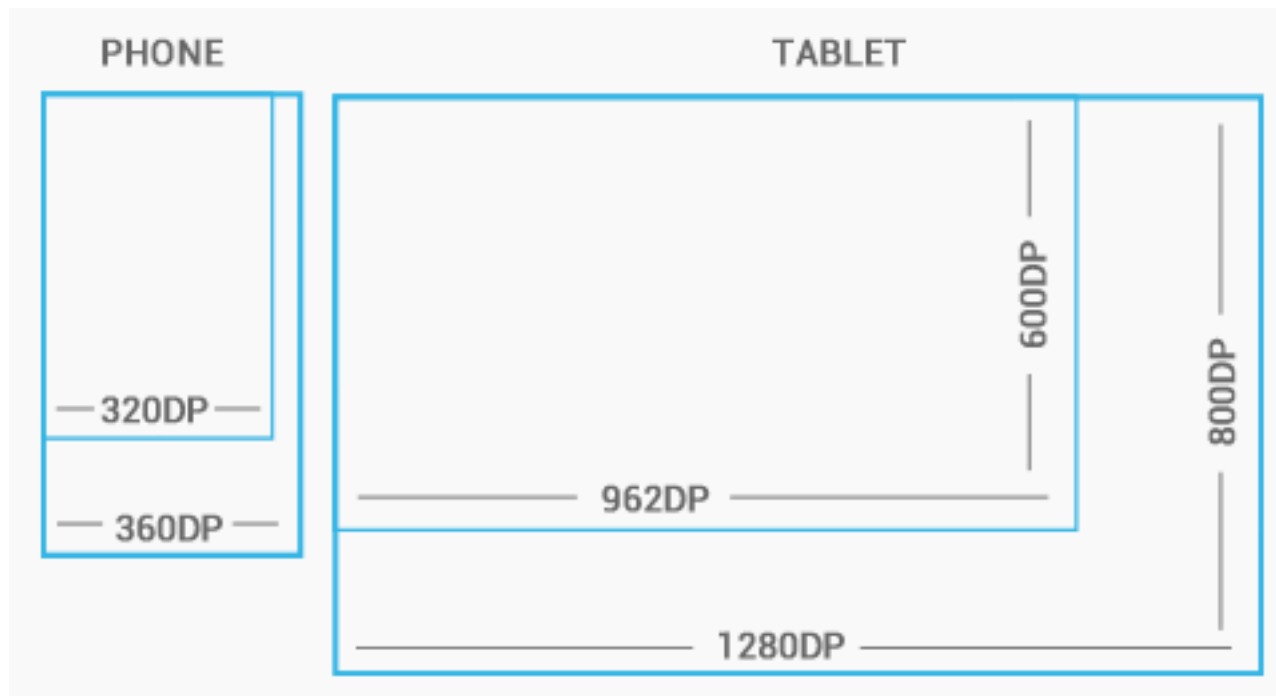


Sony Tablet S
1.280 × 800

2nd Presentation – Platforms: Android

Design | Android Developers

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



2nd Presentation – Platforms: Windows



Windows[®]
phone

Windows phone -
Microsoft



2nd Presentation – Platforms: Windows



HTC Windows
Phone 8S
480x800



Nokia Lumia
820
480x800



Samsung Ativ S
720x1.280

2nd Presentation – Platforms: Windows



Dell Latitude 10
1.366 x 768

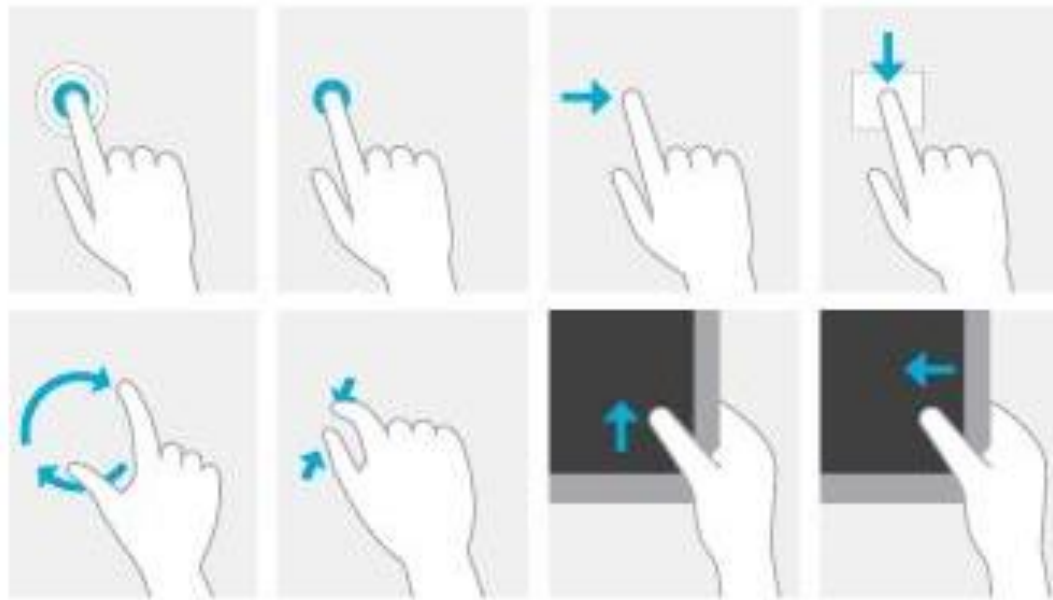


Microsoft Surface Pro
1.920 x 1.080

2nd Presentation – Platforms: Windows

Index of UX guidelines for Metro style apps

- <http://msdn.microsoft.com/en-us/library/windows/apps/hh465424>



2nd Presentation

Several options and possibilities.

Use Your Imagination!

2nd Presentation

8th to 13th Weeks (December and January)

06, 13 and 20.12.12

- 4 Students per day

10.01.13

- 4 Students

17.01.13

- 4 Students

24.01.13

- 5 Students

DECEMBER						
M	T	W	T	F	S	S
					01	02
03	04	05	06	07	08	09
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JANUARY						
M	T	W	T	F	S	S
	01	02	03	04	05	06
07	08	09	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

References

References for further readings



References

- About The Blue Shield. (n.d.). Retrieved November 7, 2012, from http://www.ancbs.org/index.php?option=com_content&view=article&id=41&Itemid=19
- Android Design. (n.d.). Retrieved June 17, 2012, from <http://developer.android.com/design/index.html>
- Champion, E. (2011). *Playing with the past*. Springer-Verlag New York Inc.
- Cultural heritage - Wikipedia, the free encyclopedia. (n.d.). Retrieved November 7, 2012, from http://en.wikipedia.org/wiki/Cultural_heritage
- Cutrí, G., Naccarato, G., & Pantano, E. (2008). Mobile Cultural Heritage: The Case Study of Locri. *Technologies for E-Learning and Digital Entertainment*, Lecture Notes in Computer Science (Vol. 5093, pp. 410–420). Springer Berlin / Heidelberg. Retrieved from http://dx.doi.org/10.1007/978-3-540-69736-7_44

References

- Index of UX guidelines for Metro style apps. (n.d.). Retrieved July 29, 2012, from <http://msdn.microsoft.com/en-us/library/windows/apps/hh465424>
- Indvik, L. (2010, December 7). Smartphone Users Prefer Mobile for Breaking News [STATS]. Retrieved January 28, 2011, from <http://mashable.com/2010/12/07/smartphones-breaking-news-study/>
- iOS Human Interface Guidelines. (2012). Apple Inc. Retrieved from <http://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/MobileHIG.pdf>
- Ontario - Ministry of Municipal Affairs and Housing. (n.d.). Cultural Heritage. Retrieved January 23, 2011, from <http://www.mah.gov.on.ca/Page1729.aspx>
- Pachler, N., Bachmair, B., Cook, J., & Kress, G. (2009). *Mobile Learning: Structures, Agency, Practices*. Springer.
- UNESCO World Heritage Centre - World Heritage. (n.d.). Retrieved November 7, 2012, from <http://whc.unesco.org/en/about/>

Thank You!



Mobile Culture & Urban Spaces

Bauhaus-Universität
Weimar

04. Cultural Heritage

http://www.uni-weimar.de/medien/wiki/IFD:Mobile_Culture_and_Urban_Spaces

