

Mobile Usability

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Overview

- What is Mobile Usability
- Why is Mobile Usability Unique?
- How to design for Mobile devices
- How to user test Mobile interfaces

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What is Mobile Usability?







Application of the user-centered design process to small, handheld electronics

Why is this an important subset of human-computer interaction to study?

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What is Mobile Usability?

Several categories of mobile devices:

Communication	Entertainment	Organization	Hybrid
<ul style="list-style-type: none"> • cell phones • pagers • portable IM • portable email 	<ul style="list-style-type: none"> • videogame systems • digital cameras • DVD players • mp3 players • GPS 	<ul style="list-style-type: none"> • Personal Digital Assistants (PDA) • pocketPC • Digital Business Card Organizers 	

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What Makes it Unique?



What is unique about Mobile Usability?


- Physical limitations
- Social limitations
- Mental limitations

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What Makes it Unique? (and hard!)

Physical limitations:

- Small buttons**
 - hard to press
 - hard to see
 - accidental keypresses
- Less buttons**
 - multi-purpose
 - no clear mapping
 - situational
- Small screen**
 - scrolling
 - modality
 - pruning



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What Makes it Unique? (and hard!)

Social limitations:

- No standards!
- Expectations are low
- Patience is low
- Social protocol is different – used in a public place



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What Makes it Unique? (and hard!)

Mental limitations:

- Lack of a mental model
 - No metaphor
 - No relationships
 - Arbitrary choices
- No spatial awareness of navigation
 - What leads where? Why?
 - How did I get here?
- Increased anxiety

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How to design for Mobile devices

Navigation.

- Where am I?
- Where am I going?
- Where have I been?
[Andorra](#)
[Directory > Regional > Countries > Andorra](#)
- Map it all ahead of time!



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How to design for Mobile devices

Visual Design.

- Simple.
- Simple.
- Simple.
- Monochromatic.
- Consistent from screen to screen

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How to design for Mobile devices

Consistency.

- Map modes to buttons
- Don't change paradigms once established
- Navigation on every page
- Buttons always the same
- Simple is your friend.

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How to user test Mobile interfaces

- Preparation.
- Detail oriented.
- Task based.
- Think aloud!



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Let's try mapping one.

In groups of two or three, map the interface for your cellphone.

1. Determine the navigation system used
2. Identify the main hierarchical branches
3. Illustrate connections between the branches.

**Is this interface easy to navigate?
Why or why not?**

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Summary

- What is Mobile Usability
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