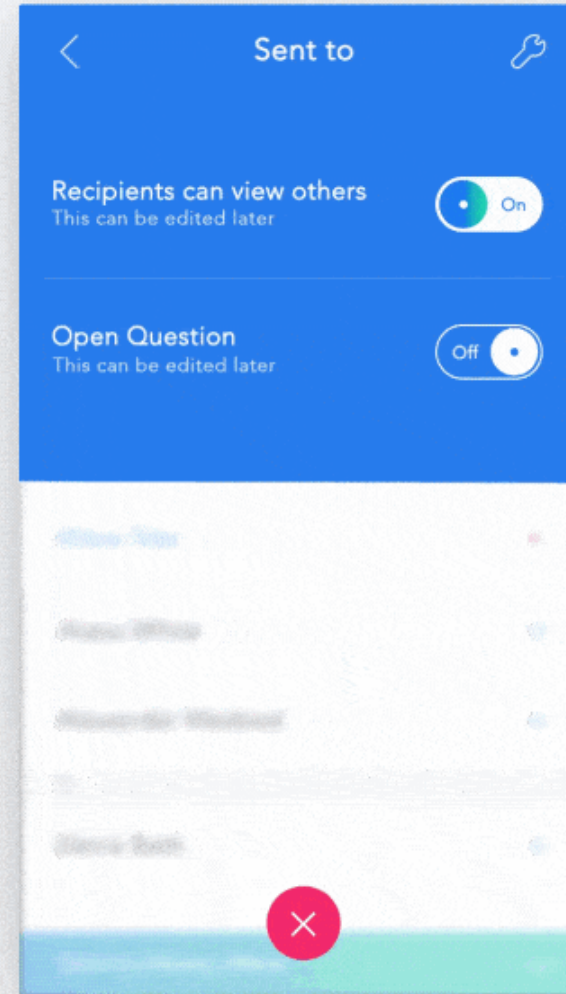


IDI – Mobile Interaction Design



Professors IDI
ViRVIG Group – UPC



Motivation

Mobile devices have different requirements for design:

- More personal
- Entering data is difficult
- Small screen sizes

Motivation

Desired features for mobile UIs:

- Quick search
- Minimum cognitive load for interaction
- Information presented in small chunks

User Interface and Interaction Design different from desktop

Design Guidelines

Keep navigation simple

Ensure navigation feels familiar

Design good information architecture

Navigation should not grab user attention

Ensure users know their location

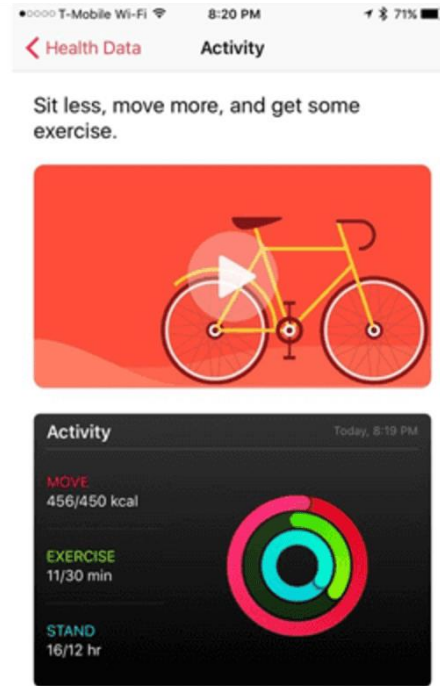
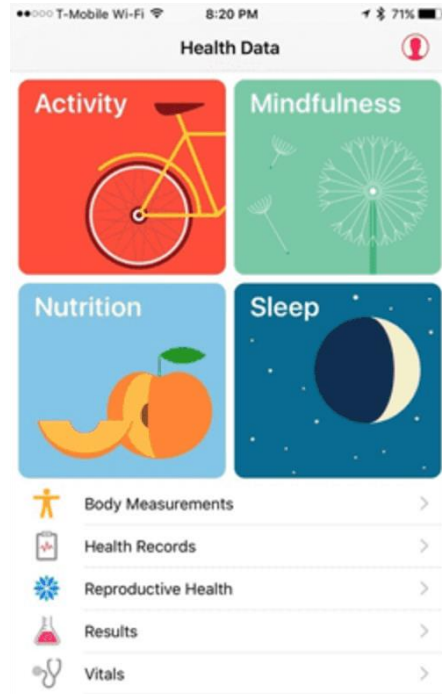
Strive for consistency

Clear path to objectives

Clear visual hierarchy

Design Guidelines

Keep navigation simple: Communicating the current section of the app



Design Guidelines

Finger-friendly tap targets

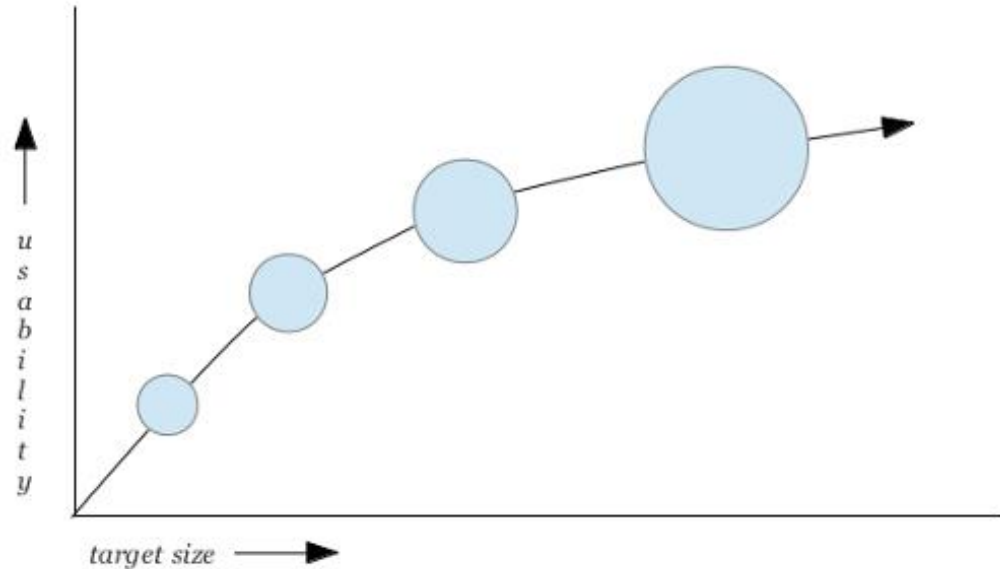
Around 10x10mm minimum
Keep good spacing between
elements



Design Guidelines

Finger-friendly tap targets

Predicted usability of a button according to its size



Design Guidelines

Finger-friendly tap targets

For mobile take into account the thumb zones

- Consider Fitts only within the operation range of the thumb
- Outside elements require extra effort



Design Guidelines

Progressive disclosure and cognitive load reduction

Cognitive load: amount of brain power required to use the app

Keep amounts of information (required to remember) low

Progressively show new features or tasks

Helps simplifying UI

Design Guidelines



Design Guidelines

Make text legible

Choose typeface that works well in multiple sizes and weights

Use legible font sizes: at least 11 points

Use adequate contrast

Design Guidelines

Make text legible

Heading Sub-Headline

Adipiscing elit. Sed neque nisl, blandit vel ipsum eu, imperdiet blandit lectus. Morbi tristique urna ut volutpat ornare. Curabitur semper vitae urna ac tempus. Duis vehicula elit nulla, eleifend egestas nisl vehicula nec. Nullam varius est dui, nec accumsan lectus posuere ut. Nullam viverra purus laoreet euismod tempor.

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Design Guidelines

Provide feedback on interactions

Use microinteractions if possible

Add progress indicators when required

Design Guidelines

Reduce clutter

Keep content to a minimum

Keep interface elements to a minimum

Alternatively, use progressive discovery

Strive for minimalism



Design Guidelines

Reduce user inputs

Simplify procedures: onboarding, logon...

Onboarding:

- Break in multiple steps
- Delay information retrieval
- Inform properly on the needs

Logon:

- Use one-time passwords or QRs when possible

Design Guidelines

Reduce user inputs

Keep forms as short as possible

Provide input masks

Use smart features such as autocomplete

Dynamically validate field values

Customize the keyboard for the type of entry

When possible, substitute text entry for options

Design Guidelines

Sketch 9:41 AM 42%

CHECKOUT

 Dribbble \$45.00
Pro Account 1 Year

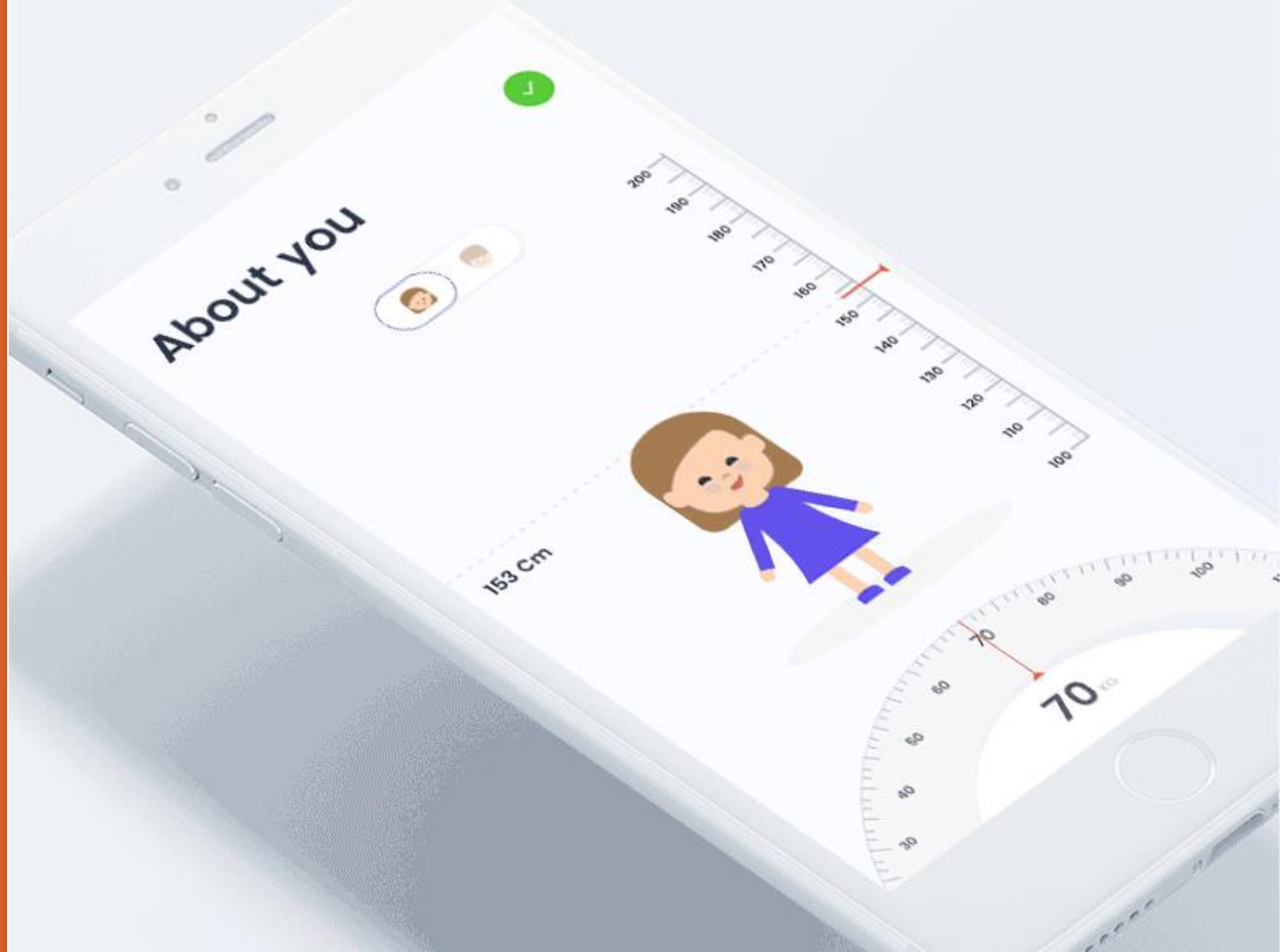
CARD NUMBER
XXXX XXXX XXXX XXXX

EXP DATE
XX/XX

1 2 3
4 5 6
7 8 9
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Design Guidelines



Design Guidelines

Manage friction

Some alternative to increase the size that improve usability:

- Visual stimulus, undo,..

Some “editing” actions must be dealt with care (send, upload, download, burn, share):

- Highlight relevant elements
 - E.g. Call To Action buttons
- Possibility of undoing (even temporarily)
 - E. g. Google’s mail

Design Guidelines

Manage friction

Design with friction to avoid mistakes. Rule of the thumb:

- Make destructive/delicate tasks more difficult
- Increasing the effort to prevent accidents
 - Buttons for non-destructive
 - Slides for destructive



Design Guidelines

Don't make users wait for content

Mobile connections are not stable: don't present blank pages to the user

Use skeletons, lower resolution images...

Update as soon as possible

Design Guidelines

Use gestures prudently

Gestures can save space: they do not require visual representations

Hard to remember and use

Not currently standardized

- Make use of standard gestures
- Don't use standard gestures for non-standard tasks

Design Guidelines

Continuous integrated experience

When possible, synchronize app with desktop interaction (tasks can be continued on different devices)

Do not replicate exact (web) experience on mobile

Be consistent with users' expectations: in terms of visual elements, interactions...

Don't open external web browsers to complete tasks

Design Guidelines



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