Procedure

1. Motivation
2. Approach
3. Experimental Study
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Motivation

• Mobility getting more important

• Current development on mobile device market
  – Mobile devices with advanced hardware capabilities

-> Feature-rich applications for mobile usage
Motivation

• Focus on limitation of

  – Display size:
    • 240 x 320 pixel or less

  – Input techniques:
    • stylus
    • touch and gestures
    • Keypad
    • QWERTY keyboard
Approach

• Android Framework (Release 1.1)

• Comparison of Mobile Platforms
  – Java ME
  – Android

• Implementation of Application for Social Networking
Approach

• Development of two prototypes dealing with:

  – Screen components
    • Arrangement
    • Interaction via menu

  – Different input techniques
    • Hardware dependency
Approach

• Scrollable View vs. Tabbed View
Approach

• Device Menu vs. Context Menu
Approach

• Direct Textinput vs. Modal Pop-up Windows
Experimental Study

- Participants chose Tabbed View over Scroll View

Figure: Rankings of the preferred Arrangement of the Profile
Experimental Study

- Problems with Modal Windows for Input

Figure: Rankings to the most difficult input techniques
Experimental Study

• Problems with date entry via ‘DatePicker’

Figure: Ratings of the statement “it was easy to input a date”
Experimental Study

• Controversial opinions about Context Menu
  – Significantly bad ranking for Accessibility
  – Equal ranking for Preference
Conclusion

- Framework provides:
  - Wide range of screen components resolving limitations
  - Gives developer great power over layout
Conclusion

• Remaining issues
  – Appearance of some widgets
  – Difficult Access of Context Menu
  – Hardware Dependency (Framework Release 1.1)
  – Low Amount of devices running Android
ANY QUESTIONS?