Workflow on Mobile phones

ASK-IT Final Conference 2008
Nuremberg, June 26-27

Kristin S. Fuglerud
Senior Researcher
Norwegian Computing Center

Mobile technology trends

- The mobile technology is maturing
  - stable, robust and powerful devices
  - high connectivity, 3G mobile services in large parts of the world
  - the global mobile penetration is about 50%
  - the western world mobile penetration is over 100%, ie mobile devices are common property
  - possible to reach large and diverse user groups, also users that do not have easy access to PC’s
  - possible to offer complex and compound electronic services for mobile devices

Workflow on mobile devices

- Common characteristics of e-services:
  - often connected to enterprise business processes
  - consisting of many tasks and sub-tasks
  - sometimes interaction with several service providers are necessary (eg. authentication and payment) to complete the main task
  - need for user interaction and user input
  - sometimes there is need for complex calculations according to specific rules and interdependencies
  - Is it possible to present such services in a user friendly way on a mobile phone?

Design guidelines for mobile workflow

- What advices did we find?
  - General usability and accessibility guidelines for the web
  - Design guidelines for mobile devices, eg.
    - W3C Mobile web best practices
    - Little spring: designing the mobile experience
    - ITU-T: Telecommunications accessibility guidelines for older persons and persons with disability
    - etc
  - Research in mobile workflow has mostly focused on technical aspects, and some on device centric aspects
  - Need for user centric research and design guidelines for mobile workflow

Essential UI requirements

- Synthesised from existing guidelines we emphasise:
  - Navigation and work flow:
    - consistent
    - User must know where s/he is in the application
    - Show progress
    - Possible to terminate anytime, save work done
  - Input and error handling:
    - Minimize need for input by pre-written values to choose from and pre-selected values where relevant
    - Informative error messages
    - Possible to escape from error conditions
  - Our design suggestions follows:

Task cards, and marking of the active card
Elastic scroll bar showing the relative position.

Changes in the colour scheme indicate invalid input.

Usability, accessibility and flexibility
- Alternative skin,
- Context sensitive information
- Audio help
- Magnifying current field
- Flexibility and complexity
- Interoperability with assistive technology

The Osiris project
The Norwegian Osiris project is part of the International Osiris project: http://www.itea-osiris.org

The Tax Card Demonstrator is one of several demonstrators

Thanks to Osiris and research teams of
- Tellu
- Karder
- NR

Contact: kristins@nr.no