Pragmatic Usability Planning

for Interactive Media Applications in EU Projects

Lessons learned from CONTESSA (and a few other projects)

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Past Experience

• More than 4 years in EU projects
  - Various research positions
    • S/W programmer, UI designer, Manager
  - Various academic departments
    • Engineering, Marketing, Management Science
  - Various industries
    • Mobiles, Television, Appliances, Cross media publishing

• Projects
  - CAMPIELLO (Tourist Information Systems)
  - iMEDIA (Intelligent Television Advertising)
  - CONTESSA (Cross Media Publishing)
Project: CONTESSA

- Usability Planning Management
- Collaborated with
  - Technology Providers
  - Users
  - Outside Experts
- Issues
  - User-partner left
  - Economic downturn
  - Cross media publishing is a new and hard problem
    - First academic conference is going to be held shortly by the CONTESSA consortium
Usability Planning Methods

• Contextual Design
  – The utopian approach
• VNET5 support
  – The ideal partner
• Pragmatic Usability Planning
  – In the context of EU projects
Contextual Design

- Contextual Design: A Customer-Centered Approach to Systems Designs
- by Hugh Beyer, Karen Holtzblatt

Unrealistic: You just have 1-2 days for on-site visits

“Good for the mind”
VNET5 Support

- Attend the workshop
  - Both a manager and a UI designer
- Ask for the validation planning procedure
  - Adapt it to your project’s needs
- VNET5 could be the ideal partner
  - But time per project is limited and after all...
  - YOU ARE responsible for usability!
Pragmatic Usability Planning

• What worked and what did not
  – User Requirements Collection
  – Communicating with engineers
  – Measuring Usability
User Requirements Collection

• Ask User-partners for available usability data

• Ask User-partners to demo systems in use
  – Use existing systems for usability testing
    • Decide which features are important
    • Set benchmarks for performance

• Build rapid prototypes for new features
  – Avoid discussions without prototypes
    • Users, Managers, engineers have very different mentalities
Communicating with engineers

- Use existing systems and rapid prototypes as a specification
  - Feature lists and UML are not enough
  - Involve one engineer in user requirements collection

- We can't change that!
  - S/W engineers are reluctant to re-write code
    - Write user interface code with the assumption that it may need to change
    - Bring-in engineers while user testing
Measuring Usability

• Measure:
  – User performance, errors, satisfaction

• Pitfalls
  – Customer goals Vs user goals
  – User Vs consumer
Measuring Usability

- The Trouble with Computers: Usefulness, Usability, and Productivity
- by Thomas K. Landauer
Mobile Usability Challenges

Multimedia

???-Phone

PDA-Phone

Game-Phone

INFORM Workshop, INTRACOM
Athens, March 20, 2003
Features for Mobile Usability

- Less is More
  - Screen resolution is small
  - The user is on the move
  - The bandwidth is expensive

- Voice Vs Screen navigation
  - Most tasks are faster to perform by simply placing a voice telephone call than by using screen navigation
Beware of Technology

- Is WAP crap?
  - WAP over GPRS
  - MMS over WAP
  - WAP push

- What about 3G?
  - It’s already here: IEEE 802.11

- Which is the killer app for mobiles?
  - Voice and text messaging are kings.
  - Games and Multimedia are promising
Useful Technologies

- Consider using now:
  - Nokia 30
    - Integrate (through serial port) PCs and custom appliances to mobile networks
    - Coordinate the mobile workforce
  - Nokia Observation Camera
    - Monitor a physical place
    - on demand, movement, time interval
  - PsiLoc MiniGPS
    - S/W solution for location information
    - Without GPS unit, indoors
- Future
  - P2P and Ad hoc networks
Find more and Contribute


– Mobile Human-Computer Interaction
  • http://www.cis.strath.ac.uk/~mdd/mobilehci/