

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



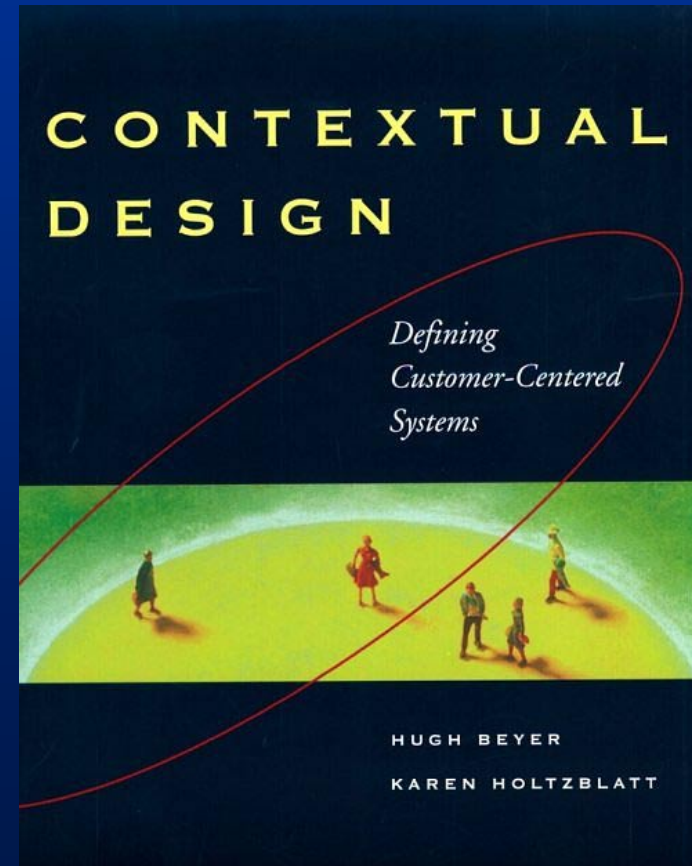
Usability Planning Methods

- 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



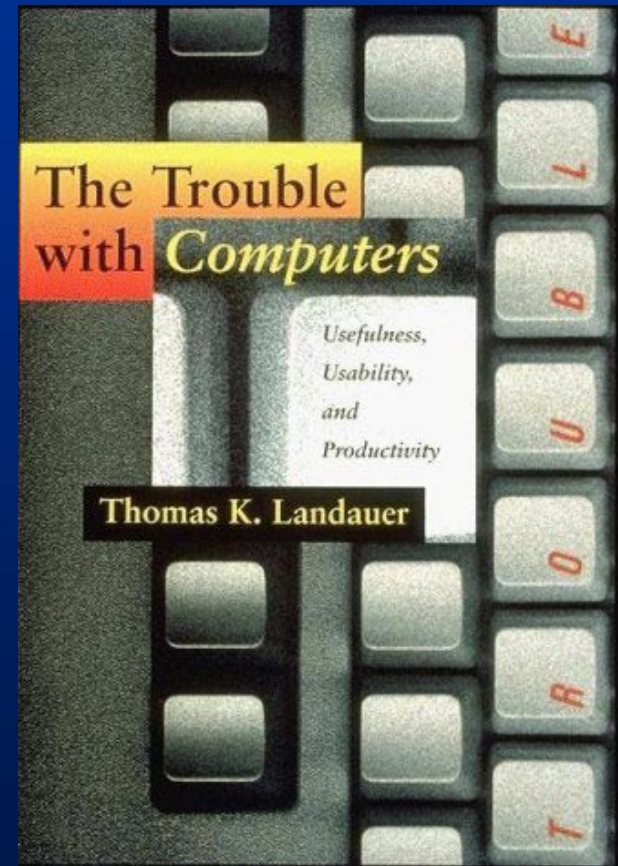
Measuring Usability

- 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

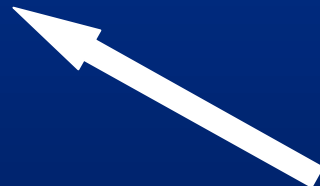
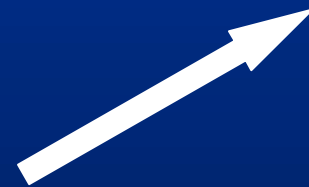
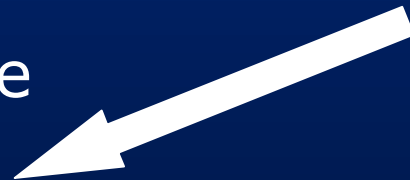
PDA-Phone



Game-Phone



???-Phone



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

- Pering C. (2002). Interaction design prototyping of communicator devices: towards meeting the hardware-software challenge. *Interactions*, Volume 9, Issue 6, pp 36 - 46
- Mobile Human-Computer Interaction
 - <http://www.cis.strath.ac.uk/~mdd/mobilehci/>

