Andrina Granić
Faculty of Science
University of Split, CROATIA

Department of Computer Science
andrina.granic@pmfst.hr
http://www.pmfst.hr/~granic

Interaction Design Symposium 2009
Split, 20th March 2009.

Research Interests

- Human-Computer Interaction

- User Sensitive Design, Universal Access

- Usability, Accessibility, Smartness, Evaluation

- Intelligent Interaction, Adaptive User Interfaces

- User Individual Differences, User Models

- e-Learning Systems

Educational Activities

- Undergraduate Courses
  - Human Computer Interaction I: Fundamentals and Principles
  - Human Computer Interaction II: Interaction Design
  - Computer Architecture
  - User Interfaces (University of Split, FESB)
- Graduate Courses
  - Human-Computer Interaction
    University of Zagreb, FER; University of Split, FESB
  - User Interface Design and Evaluation of e-Learning Systems
    University of Split, FESB

Projects and Collaboration

- International Projects and Collaboration
  - UNITE: Unified eLearning Environment for the School,
    FP6 STREP (2006-2008); Faculty coordinator A. Granić
  - Collaborative International Research Centre for Universal Access
    (CIRCUA), UK; int. member A. Granić
- National Research Projects
  - Usability and Adaptivity of Interfaces for Intelligent Authoring
    Shells, project coordinator A. Granić (2007-)
  - Semantic Web as Information Infrastructure Enabler (2002-2006)
  - Architectural Elements for Regional Information Infrastructures
    (1997-2002)

Intelligent (Adaptive) User Interfaces

- adaptive systems/adaptive user interfaces
  - more appropriate and usable interaction
    by accomodating a great diversity of users and/or functionality
  - attempt to personalize and enhance interaction
    bridging the gap between human information needs and the
    ability of machines to meet them

- solution for providing
  - higher usability and better accessibility

- majority of e-learning systems use one static interface
  → no interface adaptation

Intelligent (Adaptive) User Interfaces

- what we have done until now:
  - adaptation of knowledge presentation
    MUVIES [MUltiple VIEwS]

  - adaptation of interaction style
    AKBB [Adaptive Knowledge Base Builder]

  - empirical study on user individual differences
    statistically significant correlations found between:
    → user intelligence, experience and motivation for e-learning
    and learning outcome
    → spatial ability and orientation

  - contribution to the body of knowledge

Usability Evaluation

- usability as quality of use in context

- usability evaluation
  → fundamental role in a human-centered design process

- usability for e-learning
  → still quite new concept
  - approaches adapted to e-learning
  - heuristics applied without further adjustment to e-learning context
  - established set of heuristics and joint evaluation methodology still do not exist

Usability Evaluation

- what we have done until now:

  - approach to e-learning system evaluation
    → usability assessment based on criteria of
    objective performance measurement in systems use and of users' subjective assessment of system usage
    → methods with test users and inspection with HCI experts

  - approach to web portal evaluation
    broad reach portals
    news portals
    → discounted methodology