Entry Points into the ETH World Infostructure

Schloss Dagstuhl, August 12, 2002
Objective
- Creation a virtual campus
  - Environment for cooperation of research groups and teaching and learning communities

Design
- International competition for design concept
- Winner: Beyond Luxury

Realization
- Individual projects, developing
  - e-learning,
  - research tools,
  - information management,
  - infrastructure elements and
  - community building
Entry Points Project

Entry points into the ETH World infostructure

1. Interweaving the infostructure of ETH World with the physical infrastructure of ETH
2. Provision and utilization of location information
3. Investigation and evaluation of privacy and acceptance aspects
Entry Points to ETH World

- Augment physical ETH entities with virtual counterparts

Usage/Maintenance information
Technical Equipment
Occupancy, Reservations
Rooms

DSG Conference Aug 7 2002
Flyer
Official Announcements
Student Ads


XML

Calendar
Notification email
Diary
...
Prototype: ETHOC

- „Everything has online content“

  - Simple creation of augmented documents via Web interface
  - Easy access to virtual counterpart via multiple client devices
Prototype: ETHOC

- An objects tells something about itself
  - e.g., by displaying a dynamically generated homepage

- Content
  - depends on circumstances such as context, location and privileges
Prototype: ETHOC

- Get background information
- View schedule
- Store calendar entries
- Registration

ETHOC

HTML, PDF, vCard, vCalendar, ...

WLAN or Bluetooth

History

Location

Context

ETHOC

Web-Server
Prototype: ETHOC

ETHOC Barcode

WAP/GPRS or WAP/GSM

ETHOC Internet

WAP-Server

- Online version
- Source code
- Solutions
- Discussion list
- Place calls

ETHOC History
ETH World Positioning Services

- In-building guide and navigation aid
  - Find-your-way prototype
- Facility management
  - room utilization profiles,
  - detect zones of activity
- Electronic diary
- Lecture assistant
- Locate friends and study groups
Prototype: Find Your Way

- Positioning using barcodes
- “Routing people”
Privacy and Acceptance

- **Privacy** of location information and personalized data
- Investigation of **social implications** of introducing ubicomp technologies into the student’s lifes
Expected Results

- ETH World offers ideal deployment environment for testing ubicomp scenarios
  - Focus on technologies that are immediately available
- Experimentation with responsive objects
  - Design of virtual counterparts
  - Interaction with smart objects
- Everyday use of navigation and localization techniques
  - Evaluation of their usage constraints and opportunities in a realistic setting
Thank you for your attention!

- Email: rohs@inf.ethz.ch
- ETH World Website: www.ethworld.ch
- Entry Points Project: www.ethworld.ch/nw/projects/details/137/
- ETHOC http://ethoc.ethz.ch