

Hippie

A Nomadic Information System

Oppermann, et al.

International Symposium on Handheld
and Ubiquitous Computing (HUC 99)

<http://www.springerlink.com/media/8000YWMYUK1J6XRRVBFK/Contributions/2/9/W/R/29WRT26QM57E60VH.pdf>

what is HIPPIE?

- ★ a tool to add value to an exhibition visit
- ★ monitors the user's physical location
- ★ retains a personal profile including knowledge, interests, and preferences in a nomadic, mobile, context-aware device
- ★ supports throughout entire process: before, during, and after an exhibition visit

how do you use HIPPIE?

- ★ Preparation @ home
 - ★ Browse museum info online
- ★ Execution @ exhibition
 - ★ Search for, navigate to, and view exhibits
 - ★ Augment exhibit with extra multimedia info
 - ★ Add personal annotations
 - ★ Communicate/message (visitor tracking, maps)
- ★ Evaluation @ home
 - ★ Access profile: view history and information space

technicals

- ★ PDA with wireless LAN connection
- ★ IR position-tracking
- ★ User model automatically evaluates physical and informational interaction
- ★ Adapts to assumed interests of user via rule-defined threshold; suggests other works

summary

- ★ Takes into account both physical location and experience history
- ★ Real-time adaptation to evolving and enriched personal interests and preferences
- ★ Preparation + execution + evaluation

Can we streamline the process further?

Other adaptations [architecture, workstations, shopping, social scenarios]...

Creating knowledge bases, groups, communities...

Cyberguide

A mobile context-aware tourguide

Abowd, et al.

Wireless Networks 1997

<http://delivery.acm.org/10.1145/280000/272199/p421-abowd.pdf?key1=272199&key2=2854358011&coll=GUIDE&dl=ACM&CFID=38815448&CFTOKEN=28243070>

what is cyberguide?

- ★ mobile hand-held context-aware tour guide
- ★ knows location, user's activity, can predict future actions, and facilitate interactions
- ★ tracks location; orientation; usage history
- ★ designed as a suitable replacement for a map + information packet of the tour

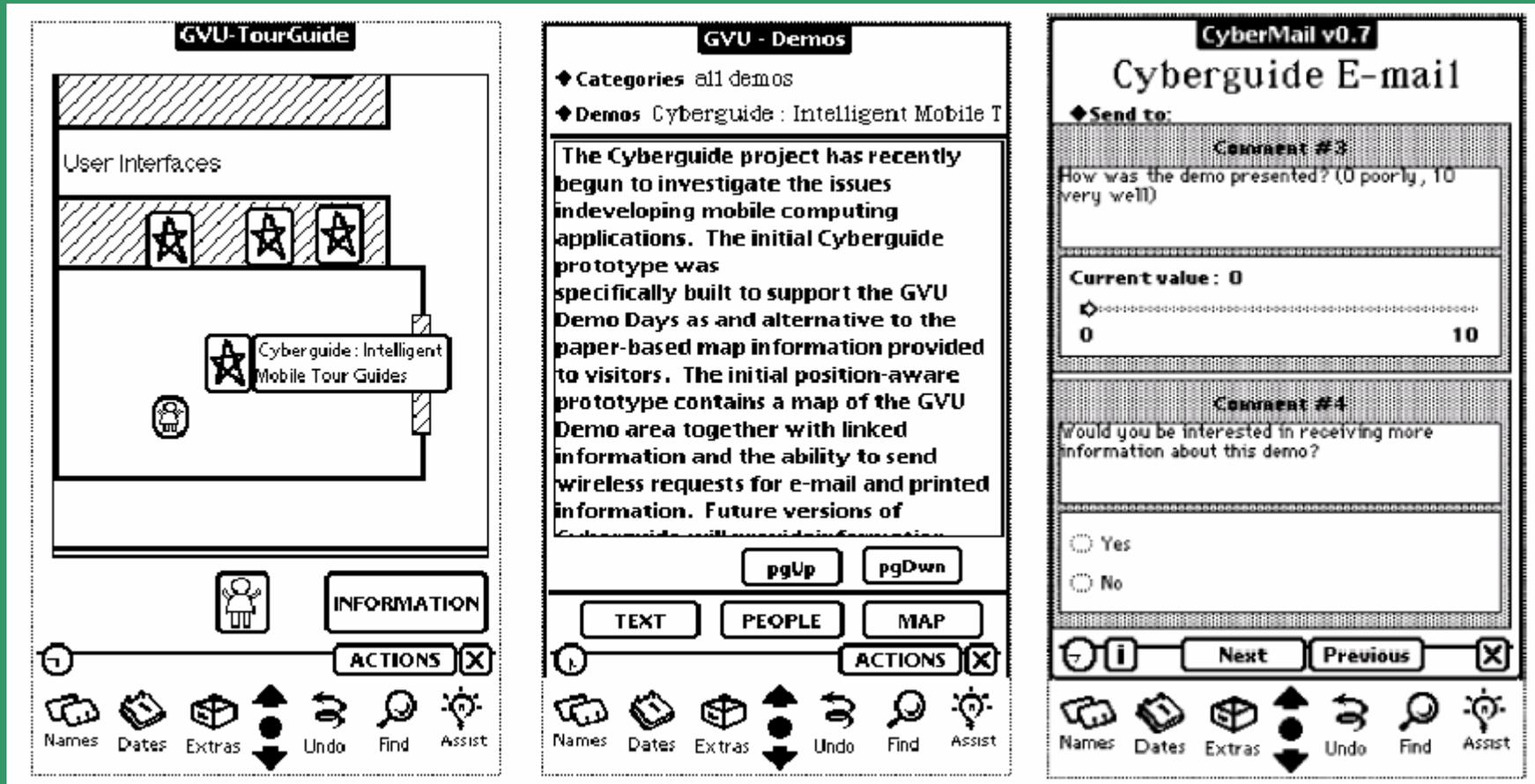
scenarios

- ★ Personal guides
 - ★ Personalized tours, route planning
 - ★ Augmentation of objects of interest
- ★ Contextualized reference manual
 - ★ Multilingual translator
 - ★ Recognizing faces + social identification
- ★ Real-time agent: reserve, queue, notify
- ★ Augmented reality displays
- ★ Context-aware tools capable of object + scene annotation
- ★ Group support: majority consensus; personal filtering
- ★ Spatial + time annotation: cartographic road-trip diary

roles

- ★ Cartographer
 - ★ Maps of physical environment
- ★ Librarian
 - ★ Repository of easily accessible information
- ★ Navigator
 - ★ Orients user location within environment
- ★ Messenger
 - ★ Communicate / broadcast wirelessly

messagePad prototype



extensions

- ★ GPS for functionality outdoors
- ★ Vector-based maps
- ★ Visual histories + annotated records
- ★ User-modifiable database
- ★ Virtual graffiti
- ★ Destination suggestions
- ★ Tourists/proprietors alike

extensions²

- ★ Enriching records: Modifying information base
 - ★ Automatic capture of user experience
 - ★ Timestamp, photo/film/audio recording
 - ★ Easily catalog + share travel experience
- ★ Additional context-awareness
 - ★ influence; weight of popular choice
 - ★ Awareness of habitual schedule
- ★ Ability to plug oneself into a larger system

thoughts

- ★ Different flavors of tour guides... would you like to be led by the gallery curator, or the artists themselves? Do you want the demo geared for a sponsor or a student?
- ★ More tangibility... maybe the handheld shakes when orienting in correct direction
- ★ Physical bookmarks (objects with memory)
- ★ Directly share (*i.e.* VNC, remote desktop)

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thanks!