

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

GVU-TourGuide

User Interfaces

Cyberguide: Intelligent Mobile Tour Guides

INFORMATION ACTIONS

Names Dates Extras Undo Find Assist

GVU - Demos

- ◆ Categories all demos
- ◆ Demos Cyberguide : Intelligent Mobile T

The Cyberguide project has recently begun to investigate the issues in developing mobile computing applications. The initial Cyberguide prototype was specifically built to support the GVU Demo Days as an alternative to the paper-based map information provided to visitors. The initial position-aware prototype contains a map of the GVU Demo area together with linked information and the ability to send wireless requests for e-mail and printed information. Future versions of

pgUp pgDown

TEXT PEOPLE MAP ACTIONS

Names Dates Extras Undo Find Assist

CyberMail v0.7

Cyberguide E-mail

◆ Send to:

Comment #3
How was the demo presented? (0 poorly, 10 very well)

Current value: 0

0 10

Comment #4
Would you be interested in receiving more information about this demo?

Yes
 No

Next Previous

Names Dates Extras Undo Find Assist

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!