ActiveCampus – Experiments in Community-Oriented Ubiquitous Computing

Presented by Mary Salinas
What did they do?

• Created two software components: ActiveClass and ActiveCampus.
• Distributed HP Journada Pocket PC PDAs to 3 classes and 300 freshmen to use with software.
• Encouraged students to use them to interact with instructor and students in class.
• Encouraged students to use them in informal interactions with each other.
Why did they do it?

• Wanted to study use of handhelds in a way that would enrich the experience of college life.
• Answer questions about what sort of applications, infrastructure and interfaces would make handhelds fulfill promise.
• Using technology that would provide value from fellow users.
Implementation

- Client/server model with server including a web server with MySQL and PHP.
- Applications served with HTML
- SOAP RPC calls handle location detection and reporting.
ActiveClass Functionality

- Could ask a question
- Questions could be answered by others
- Questions could be voted on to encourage professor attention
ActiveClass

- Designed for use in large class where often students do not interact much with professor.
- Acted as a “virtual student”.
- Identity of student is hidden from other students but is available to professor of the class.
ActiveClass Results

• 1/3 of students used it regularly. Majority did not.
• Professor felt it was a success and would use again.
• Students found it hard to use phones in addition to taking notes.
• Students frequently answered each others questions.
ActiveCampus Views
ActiveCampus Functionality

- Main screen includes showing location, activities and Buddies on map.
- Buddies list is organized by proximity to user with location displayed.
- Other pages show list of locations, list of graffiti, and can do actions to them.
ActiveCampus Limitations

• Limited PDA battery life and constant use model was serious limitation.
• Graffiti was not displayed on maps and thus not obvious.
• Users had difficulty keeping phones where they could be used. Women’s clothing does not provide pockets for storage.
ActiveCampus Postive Results

• Users did seem to use it more frequently for people nearby.
• People did not seem concerned about their location and only 1% hid it completely. 8.2% revealed location to non-buddies.
• Suggested that relative location might be very useful.
ActiveCampus – Participation over Time

Content Creators

Number of Creators

Month

Mar-02 Apr-02 May-02 Jun-02 Jul-02 Aug-02 Sep-02 Oct-02 Nov-02 Dec-02 Jan-03 Feb-03 Mar-03

Message Senders Graffiti Posters
What has happened since then?

- Two separate areas really. One is location-awareness and social applications.
- Foursquare (2009) and other location-aware applications exist now.
- Also follow-up work in many places on improving classroom interactions.
Other work in classroom environment?

2007 - Exploring the Potential of Mobile Phones for Active Learning in the Classroom

http://cseweb.ucsd.edu/users/wgg/Abstracts/fp142-lindquist.pdf

Discusses SMS, MMS interaction in class as well as tablets. Too costly for many
Any Questions?