

# Ubiquitous Computing

Week 10

## Weiser definition...

- “The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.”
- We call our work "ubiquitous computing". This is different from PDA's, dynabooks, or information at your fingertips. It is invisible, everywhere computing that does not live on a personal device of any sort, but is in the woodwork everywhere.”

## Technologies/Approaches...

- Sensors
  - E.g. For tracking location, movement, environment conditions, social conditions etc.
- Communications Technologies
  - Especially wireless, low power etc.
- AI approaches
  - for inferring 'situations' from the fusion of data obtained from sensors
- Output to users
  - Actuating devices, e.g. In the home
  - Embedded displays (see Hermes...)
  - Etc.

## Example systems/technologies...

- The MediaCup
- Hermes 1
- Hermes 2
- Hermes@Home
- Videos...

## Example: The MediaCup

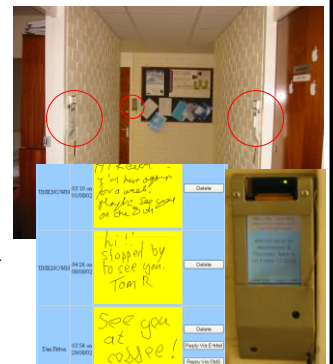
See <http://www.smart-its.org/>

- “Ubiquitous Computing is fundamentally characterized by the connection of things in the world with computation” (Weiser)
- A smart device with context awareness:
  - Movement of the cup
  - Temperature
- Ability to communicate
  - With other devices (watches, door plates)
  - Sharing of context



## Hermes 1 Overview...

- Motivations...
  - Longitudinal study...
    - April 2002
    - 27 months...
    - > 10 units...
    - of McCarthy's Outcast (1 unit deployed), etc...
  - Exploring 'use' in semi-public/private place
    - Coordination through sharing of awareness/context info...
  - Affordances
    - Remote Interaction
    - Visibility of msgs





# Hermes@Home

The screenshot displays the Hermes@Home web portal. At the top, it says "Logged onto Hermes@Home Web Portal" and "Your recently visible messages". Below this, there are several sections: "Home Display Message" with buttons for "Get Home Display Message" and "Get Home Display Message"; a "Messages" section with a "View Messages" button; and deployment statistics. The statistics are as follows:

Deployment Info	Messages sent from home	Messages to home
1st deployment info: after 4 weeks...	126	30
3rd deployment info: after 10 days	126	44

Handwritten messages are visible in the background, including "I love you From Alys" and "I love you From Alys".

# Issues?