Design and Technology for Collaborage: Collaborative Collages of Information on Physical Walls. Moran, et al. UIST. 1999.

What are the core research questions addressed by the work?

- Combining the advantage of physical walls and dynamic online information systems

What motivates the work?

- Putting information on walls is a common practice in the workplace
    - Serve as persistently visible display surfaces where paper documents, clippings, posters, notices, computer printouts, handwritten notes, etc., are posted
- Advantages of walls: persistently visible and public, can be collaboratively constructed, a locale for discussion
- Disadvantages of walls: Only visible from one place, information not easily related to online information
- In part motivated by earlier study - use of large electronic display technology
    - Advantage of new system: larger, always “on”, effective to create a public locale for interaction and collaboration, “calm”, cheaper

How does the work understand the usage, capabilities, and limitations of paper?

- Paper is a common physical artifact that is attached to walls as an information item

What is the target application domain of the work?

- In the office space

What are some proposed extensions to paper proposed by the work?

- Enabling information sensing and tracking on walls
- Provide electronic services to walls

How are the proposed extensions implemented?

- Consists of a board (e.g. a tack board on a wall) on which various physical information items (e.g. papers) can be arranged
    - Paper tagged for location and information item identification
- Hardware: A controllable pan-tilt camera connected to the frame grabber on a computer
- Software: Board Observer Server (BOS), tracking items on the board
    - Reports events to a dispatcher that routes them to applications

What findings have been obtained from either the implementation process or an evaluation of the proposed system?

- Interactivity issues
    - Rate of interactivity limitation: Takes system several seconds to react to user actions
    - Feedback limitation: Crucial to give user feedback about system’s progress
    - Physical range of interactivity limitation: Depends on detection size (field of view) of camera
- Explicit commands versus implicit use
    - System currently implies a implicit use model, but explicit commanding could also be helpful
- There is potential in more sophisticated uses of image recognition
- Important to pay attention to inconsistencies between systems

- Video projection may not always be appropriate: May be too “intense” for persistent displays