

## Using Note-Taking Appliances for Student to Student Collaboration

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April 30, 1999  
 CILT '99

<http://gui.berkeley.edu>

## Observation

*Students often leave class with different ideas about what was discussed & what was important. They also spend a lot of time copying information.*

Can we improve this by encouraging collaboration?

## Vision

*Take notes on note-taking appliances\* & combine after class along with lecturer's slides!*

\* electronic devices suited primarily for writing notes

## Vision

## How NotePals Works

Meet in the classroom

①

Take free-form ink notes on PalmPilots or CrossPads

②

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### How NotePals Works (cont.)

3 Dock PalmPilot/CrossPad with PCs & Synchronize

4 Review notes on the Web

### Sharing Notes

### Graduate Note-taking Experience

how to make you 80% full disk perform like a 10% full disk. Clean when emptier segments

expected curve

### Graduate Note-taking Experience

U-Net: Memory mapped I/O

sharing among process (page to main mem.) for > 16 procs as we change to NIC: 16 endpoints

### Graduate Note-taking Experience

control: multiple "nodes" (clients) & servers. Each node affects the other. Through multiple applications in parallel, increasing CPU loads - hence lots of interrupts - overhead of users.

network device scheduling: nothing to do, wait scheduling policy - the process is "owned" by software or hardware (the scheduler)

Network solution: do send you network, then poll

no device parallelism: mutual rate in building time. (all requests that occur during period must be handled during that time allocated to device)

### Advantages of our Approach

- ✓ Lightweight infrastructure
  - \* no expensive hardware or special rooms
- ✓ Lightweight interface
  - \* free-form ink lets students focus on class
- ✓ Lightweight sharing
  - \* share load of taking notes
  - \* not limited to a single perspective

"Sharing notes using NotePals  
can help groups of students  
collaborate more easily"



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