Classroom Presenter and Tutored Video Instruction

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Classroom Presenter
• Distributed, Tablet PC Application
• Initial development, 2001-2002 at MSR
• Continuing development at UW
• Collaboration with Microsoft
• Classroom Presenter 3
  – Release Target: April 2007

Ink based presentation
• Tablet PC Inking on images
• Simple pen based controls
• Whiteboard, slide extension
• Multiple views – instructor/display
  – (dual monitor)
• Multiple slides decks with filmstrip navigation

Classroom Presenter
• Distributed, Tablet PC based application
  – Instructor, Display, and Student machines
• Synchronized navigation of slide deck
• Instructor ink distributed in real time to all machines
• Student Submissions
  – Slides used to distribute activities to students
  – Student work sent to instructor
  – Instructor shows student work on the public display
Student Attention vs. Time

Tutored Video Instruction with Classroom Interaction
- Joint project between University of Washington, Beihang University, and Microsoft Research Asia
- Offer an undergraduate course using Tutored Video Instruction
- University of Washington course CSE 421

Motivation
- Offer undergraduate algorithms course at Beihang
  - Instructor is in Seattle
  - Time difference prevented a synchronous distance course

Tutored Video Instruction
- Base course on facilitated use of recorded materials
- Materials recorded from a live class
- Facilitator guides discussion around materials
- Gibbons, Science 1977

Course Mechanics
- Lecture recorded at UW using ConferenceXP
- Teaching Assistants at Beihang replayed lecture
- Stopped the video regularly for questions and explanation

Role of Tablet PCs
- UW Course used Tablet PCs once a week
- Beihang class had Tablet PCs for activities for every lecture
  - Students did activities
  - Teaching Assistants displayed the solutions
- Teaching Assistants used Classroom Presenter to write on slides to enhance explanations
Teaching Assistant Ink

Student Submissions

Evaluation

• Students performed well
  – Exam results, observation
• Positive survey results
• Interactive class sessions
• Technology and logistics successful
• No negative impact on UW class
• Tablets PCs / Classroom Presenter considered to be very important

TVI DEMO

Longest Common Subsequence

• $C = c_1...c_g$ is a subsequence of $A = a_1...a_m$ if $C$ can be obtained by removing elements from $A$ (but retaining order)
• LCS($A, B$): A maximum length sequence that is a subsequence of both $A$ and $B$

Determine the LCS of the following strings

BARTHOLEMEWSIMPSON

KRUSTYTHECLOWN

ocurrane
occurrence
attacggct
 tacgacca
Submissions

1. Determine the LCS of the following strings
   - BARTHOLEMEW
   - SIMPSON
   - KRUSTY
   - THE
   - CLOWN

2. Determine the LCS of the following strings
   - BARTHOLEMEW
   - SIMPSON
   - KRUSTY
   - THE
   - CLOWN

Special problem: Large Size

- List at least three problems trees must face (& solve) because of their large sizes.
  1. 
  2. 
  3. 

- Additional:

10 reasons why Classroom Presenter is better than PowerPoint

1. Simple pen based UI
2. Instructor Notes
3. Film strip navigation
4. Slide previews
5. Lecture export to HTML
6. Extra writing space
7. Distributed Presentation
8. Full screen erase
9. Multideck model
10. Default Inking

Any questions?

- Richard Anderson, anderson@cs.washington.edu
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- Classroom Presenter
  - www.cs.washington.edu/education/dl/presenter/
- Classroom Presenter 3 downloads
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