CSC 484 Lecture Notes Week 9

Administrative Matters

Research Readings Weeks 7 - 9

Leftovers from Notes 6

I. Relevant reading.

A. Week 9 research reading:

"Usability evaluation considered harmful (some of the time)"

Relevant reading, cont'd

B. Papers selected by your team for A4.

II. **Recap of schedule.**

Week	Day	Lecture	Lab
9	Mon Wed Fri	Typical Lecture DRC Guest Lecture Quiz (full lecture)	2d3d Usability 1 2d3d Usability 2 2d3d Usability 3
10	Mon Wed Fri	Gatekeeper Usability Swat Usability A4 Presentations	Mobility Usability Menupad Usability TouchTen Usability
Finals	Mon, 10-1 Wed, 5pm	Final Presentations Final Project Due	

III. **Discussion of Assignment 4**

A. Discussed during last Friday's lecture.

B. Pairings of teams-to-sessions today.

IV. **Discussion of the quiz.**

A. Will take the hour.

B. Open-book, open-paper, open-note.

C. Two questions on most resent readings.

Quiz, cont'd

D. Additional questions on ch 3 - 8.

E. Paper-related questions same format.

F. Book-related questions short-answer, m/c.

V. Final adjustments to grade breakdown.

Assignments (4): 40%

Project (4 milestones): 45%

Debate: REPLACED by A4

Quizzes (4): 15%

Final Exam: CANCELED

VI. **Weeks 7/8 research reading.**

A. Integration of visualization and statistics.

B. Authors present four case studies

VII. **Week 9 research reading.**

A. Usability analysis is not be-all, end-all.

B. Specific concerns:

1. Hypotheses chosen to suit analysis method.

2. Designs validated by existence proofs.

Week 9 research reading, cont'd

3. Usability experiments rarely replicated.

4. Qualitative analyses artificially mapped to quantitative frameworks.

Week 9 research reading, cont'd

5. Usability tests too early can stifle creativity.

6. Usability of truly cutting-edge technology may be meaningless.

Week 9 research reading, cont'd

C. Authors don't want to scrap usability testing, just tighten it up.

VIII. Finishing topics from Notes 6.

A. Items **IX** - **IV**, pp. 4 - 6.

IX. **Mobile interfaces, textbook pp. 265-269.**

A. Very active work.

B. ACM MobiCom going strong.

C. Book focuses on cell phones, PDAs.

D. Numerous others, e.g., automobile UIs.

Mobile interfaces, cont'd

E. R&D issues.

1. Small screen, limited keypad.

2. Mobile OSs

- Windows CE

- iPhone OSs (iPhone Linux??)

X. **Multimodal interfaces (pp. 269-271.**

A. Integrate touch, audio, video, speech.

B. Speech + vision processing is common.

Multimodal interfaces, cont'd

C. R&D issues.

1. Still investigating fundamental issues.

2. Human-to-human forms useful for human-to-machine interaction?

XI. **Sharable interfaces (pp. 271-275.**

A. Electronic whiteboards, tabletops, e.g.,

Microsoft surface.

B. Support collaborative work.

Sharable interfaces, cont'd

C. R&D issues.

   1. High cost of displays.

   2. Fundamental research continues.

   3. Book discusses some, pg. 275.

XII. **Tangible interfaces (pp. 275-277).**

A. Simulate real-life behavior, manipulation.

B. RFID-tagged objects, digitized table top.

Tangible interfaces, cont'd

C. R&D issues.

1. As with sharables, fundamental questions remain.

2. GUI tools, techniques applicable?

XIII. **Augmented, mixed reality (pp. 277-281).**

A. Integrate digital, physical worlds.

B. Successful in medical apps.

C. Also "heads-up" displays.

D. Public displays, gaming are coming.

Augmented and mixed reality, cont'd

E. R&D issues.

   1. Where does digital augmentation appear?

   2. When are such UIs most effective?

XIV. **Wearable interfaces (pp. 281-284).**

A. Strap a video-cam to your forehead,
   or stitch one in your lapel.

B. R&D issues.

1. Comfort is a key issue.

2. Social acceptance and privacy.

XV. Robotic interfaces (pp. 284-285).

A. UIs embedded in robotic devices.

B. New Scientist paper:

"Electronic 'pet' could
replace passwords and PINS".

Robotic interfaces, cont'd

C. R&D issues.

1. How canipomorphic, anthropomorphic?

2. Do we license our robotic pets?

3. Do we marry our robotic companions?