CPSC 444: ADVANCED METHODS IN HUMAN-COMPUTER INTERACTION

Lecture 9 – Video

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• Scheduling design competition
  • Tentatively scheduled for last lecture of term
  • 110 minutes really tight for 10 projects
    • How many cannot stay past 5:30pm?
  • Plan is to have a social 5:30-6:30pm, while judges deliberate (I bring the food!)
• MSIII was due this morning
  • be prepared to demo completed prototype in Friday’s design review

• MSIV
  • Experiment report is done INVIDIVUDALLY – due in 3 weeks
  • Three main components of MSIV due on 3 different days
  • Final video will be due AFTER MSV (presentation but you need to work on it during MSIV – will want to use some video in MSV)
  • Important to look at the schedule carefully
MSIV: Workplan Recommendation

• To allow adequate time for all Parts A, B & C, we suggest the following workplan below. You have ~**3 weeks for parts A/B. Part C overlaps with MS V.**

**By the end of the 1st week:** Complete Step 1 and Step 9.

• Team discusses pilot results and finalizes modifications to the experiment protocol. Team also discusses the plan for the project video. Use workshop time to get feedback from the course staff on both these issues.

**By the end of the 2nd week:** Complete Step 2 and have Steps 3, 4, 5, 6 and 10 underway.

• Consult MSIV for which pieces are done by group vs. individually

• Gist: Team discusses preliminary analysis of the full set of data and preliminary conclusions. But graphs, interpretation of, formulation of conclusions, etc. should be written and presented individually in the experiment write up.

• Team and TA feedback should be solicited on the video data clips selected as well as those new clips that have been created from scratch to be part of the final project video.
**MSIV: Workplan Recommendation**

**By the end of the 3 week:** Complete Steps 7 and 8.

- Have brainstormed the components in Steps 7 & 8 of the project.
- Work on video, identify clips to use in MSV.
LEARNING GOALS

• video throughout the design cycle
  – and its strengths/weaknesses

• video for presentation purposes
  – examples and discussion of 444 project videos + other videos

• ethics of video
  – general guidelines for HCI researchers
  – requirements at UBC (testable material)
VIDEO THROUGHOUT THE DESIGN CYCLE
VIDEO THROUGHOUT THE ITERATIVE DESIGN CYCLE

• Mackay’s video:

• Using Video to Support Interaction Design

• (resource that was provided to all attendees at a CHI conference a number of years ago)

• Available online:
  http://www.youtube.com/watch?v=LKjTco_B9tY
HIGH-LEVEL NOTES ABOUT THE VIDEO

• full video ~1.5 hours, you will see ~35 min
• video can be used throughout the design cycle
• here it is used for:
  – (meta-level) capture researchers conducting UCD
  – interviews
  – video brainstorming (rough ideas)
  – prototyping
• of course it can be used for other things as well
  (observation, data collection in a user study)
YOU SHOULD TAKE NOTE OF...

• introduction - ways in which video can be used
• interview and observation
  – how use of video gets introduced to interview participants (we need a consent form as well)
  – how to make participant comfortable
  – what is filmed during interviews
  – value of interviewing in context
• brainstorming – general ideas
  – rules for brainstorming
  – process for going from lots of ideas to small select group
  – quick and dirty nature of video brainstorming – do a number of takes, but it doesn’t need to be perfect
  – brainstorming continues while working with video
YOU SHOULD TAKE NOTE OF… (CONT’D)

• prototype – creating a design
  – how video supports bringing new team members up to speed quickly
  – building a use scenario based on the interviews and brainstorming
  – gist of sketching a storyboard
  – how to construct a video prototype & level of polish needed (bit better than brainstorm, but still is just a prototype)

• walkthrough evaluation of a prototype
  – how a walkthrough evaluation can be conducted on video prototypes
  – value of having team members represent different roles
VIDEO CLIPPER

• A novel tool for video prototyping
• Also from Mackay’s team, Inria, France
• Runs on an iPad
• 2 examples...
STRENGTHS/WEAKNESSES OF VIDEO THROUGHOUT DESIGN CYCLE
VIDEO FOR PRESENTATION
REVIEWING 444 CLASS VIDEOS

- Two were shown at introductory lecture
- Will review 2-3 today, consider the questions
  - What is the motivation for the interactive system introduced?
  - What was the design methodology used?
  - How does the interactive system work? (What are its primary features?)
  - How was it evaluated?
  - Does the video capture the essence of the overall project?
  - What is the production quality?
  - Are you engaged?
WHAT MAKES A GOOD PROJECT VIDEO?

– engagement
– pace
– quality of video clips
– scene transition
– amount of panning and zooming
– narration – quality of voice + script text
– volume
– use of music
– composition (motivation, overview of iterative design process, highlight prototype design and evaluation, data capture with real participants)
IN WHAT WAYS IS VIDEO FOR PRESENTATION LESS THAN OBJECTIVE?

• operator bias
• difficult to capture shared context
• selective segments
• enhancements
HCI COURSE ETHICS

• REMINDER:
  Videos that identify participants cannot be shown outside of class (and definitely cannot be posted on your blog).
REMINDER: ABOUT HCI COURSE ETHICS

• Consent form confidentiality clause:

• **Confidentiality:** The results of your participation will be reported without any reference to you specifically. All information that you provide will be stored in Canada. It will be treated confidentially and your identity will not be revealed in reporting the study results. The two exceptions are: (1) excerpts from the video/audio recording in which a participant can be identified may be presented in a class project presentation (but any other presentation venue, such as a scholarly conference, will require that participants be non-identifiable in the video/images), and (2) we request but cannot enforce focus group members to keep discussions from any focus group confidential.
REMINDER:  
HCI COURSE ETHICS (CONT’D)

• Section 8.2 (refresh yourselves!)

• ... No one other than those mentioned above will have access to the data. Therefore, it will be strictly prohibited for any raw data, including audio/video recordings and still images, to be made publicly available over the Internet or any other medium. The one exception is that audio/video and still images where the participant is not identifiable may appear in scholarly publications and theses, which are now commonly available online. The only other permitted uses of audio/video recordings will be for data analysis, and for the purposes of creating a short (3-5 min) video that is an overview of the entire student project and that may include short snippets of participants, for example, interacting with the prototype. That video will be shown as a part of the class project presentations. The video cannot be posted online if any participants are identifiable. Permission to videotape class project presentations will not be granted if the presentation includes identifiable participants.

• Students who wish to show images/videos in presentations at a venue other than their final class presentation (for example, at a conference) can only do so if the participants are not identifiable. If students cannot achieve this, they will be required to make a ‘demonstration’ version with a ‘stand-in’ rather than showing any actual participants in the video. ...
More examples of describing a system/technique clearly

Examples:

– Enhanced area cursors:
  https://www.youtube.com/watch?v=Nci-EAZLOpg

– Time Line Curator (also has a nice motivation):

• What sorts of strategies are being used?
Next Time:

- Starting on Models of Users
  - Models of motor performance

- Prep assignment posted by Wed, due next Tuesday
  - Paper to read
  - Conduct a very short Fitts’s law experiment and analysis
  - Don’t leave until last minute!