ADMINISTRATIVIA

• Sorry that I couldn’t post these slides last night
  – Tried several times, but remote.ugrad.cs.ubc.ca was down!
  – Have been in meetings all morning
• Team formation now done – see me today if you think otherwise

• MSI release on Canvas on weekend – average 75.5 (min 61; max 89)
  – Higher than previous years

• MSII was released in works
  – Blog update #1 was due this morning
  – Report and blog update #2 due two weeks from today
  – Example MSII from previous year will be posted to Piazza.
ADMINISTRATIVIA (CONT’D 2)

• Workshop
  – Get TA feedback on your field study design, focal points, etc.)
  – Get TA approval on your ethics documents (e.g., call for participation, consent form, interview script)
    • Cannot start data collection until you have approval
  – Use time to collect data for Prep W05

• TCPS due this week!
  Submit via Canvas by whichever is earlier:
    • Friday @ 10am
    • OR before you start running subjects
FIELD STUDIES III - LEARNING GOALS

• Using video for data collection
• Interaction analysis (+ activity)

• We will consider some of the discussion questions for the Porcheron et al. paper throughout
RECALL: DATA ANALYSIS

• circulate notes and transcriptions among team

• hold video analysis sessions

• identify patterns: in behaviour, events, artifacts, within and across individuals

• common techniques:
  – coding data
  – affinity diagrams

• triangulate data where possible
  – Porcheron et al.: examples of how is data triangulated? (worksheet a-c)
Recall: Coding data

- **Coding**: technique where you label chunks of data to describe what you see happening.
- can code many kinds of data, e.g.
  - text in field notes and transcripts
  - events or sections of video
- goal is often to identify themes, categories, patterns in behaviour, artifacts, events, etc.
- affinity diagramming often used to look for commonalities
- **open coding**: themes, categories, etc. are ‘discovered’ while you are going through data
- **closed coding**: you know what themes and categories you want to look for examples of *before* going through data
- What coding was used in Porcheron?
WHY VIDEO?

• Porcheron et al.: what was the benefit of using video data and interaction analysis for this research? *(worksheet d)*
  – what might *not* have been found from from interviews or in-person observations alone?
WHY VIDEO?

pros of video:

– data about what **actually happened**, rather than accounts of what happened (not subject to secondary interpretation)
– relatively **consistent bias**
– **permanent primary record** rich in detail – repeated viewings can uncover patterns not seen initially
– capture **complex interaction** data in a way that would be impossible for a single observer

cons of video:

– can be **time-consuming and labour intensive** – degree depends on transcription intentions

more detail Jordan & Henderson reading, Section 3 ...
LIMITATIONS TO VIDEO

• transformation of objective reality, rather than objective reality itself
  – limits of the camera operator: deciding what to capture (can mitigate through multiple cameras in permanent positions, but results in more data to analyze!)
  – limits of the technology: more restricted than human sensory system

• (perception) subjects adjust behaviour
  – in reality, subjects habituate very quickly, especially when operator not present

more detail Jordan & Henderson reading, Sections 4 - 5 ...
RANGE OF USE

• in the field:
  – often used as the primary data collection
  – observational notes may be taken as well

• in the lab:
  – can be primary, but more commonly secondary
  – as secondary, researchers want a backup to allow exploration of isolated/selected interaction segments (useful if coded and timestamped in an observation sheet for cross referencing)

key point: the more qualitative in nature the study, the greater the likelihood that video should be used
CLASSIC USABILITY LAB SETUP
**Interaction Analysis**

- an approach to analyzing video that involves some ‘coding’
  - described in more detail in Jordan and Henderson reading
  - is it intended to be *open*? or *closed*? in its approach to coding?

- analysis generally collaborative, done in groups
  - *benefits of collaborative viewing/analysis*? (sec. 2.3)

- uses *analytic foci* as way to identify things that are commonly useful to look for
  - but not meant to be strict coding categories
Analytic Foci

• summary provided as a worksheet
  – detailed in Jordan and Henderson, Sec. 6

• Porcheron et al.: what are some examples of analytic foci that likely guided the authors in their interaction analysis? (worksheet e)
**Activity – Video Analysis (~45 min)**

video here: [https://youtu.be/Jirm3sS-UZI](https://youtu.be/Jirm3sS-UZI)

**Step 1: Interaction analysis activity (15 min)**

**Step 2: Affinity diagram activity (15 min)**

END: Groups present most interesting observation (10 min)

Discussion about merits/weaknesses of interaction analysis

**Step 3: Design Brainstorm (If TIME)**
**Activity – Things to Consider**

If you’re feeling stuck, consider some of these questions:

– How is ownership established in this workspace?
– Do teammates ask for help? How do they do so? When do they do so? How do others respond?
– How do the participants go about solving this puzzle? Piece-wise? What is the strategy they adopt?
– How does the dialogue affect the puzzle solving? Does it help?
– How are pieces placed on the table?
– How are gestures used in this task?
– How well do these people know one another? How does it affect the way the task proceeds?
Discussion Questions to Consider

• What happens when there are hundreds of hours of video? How do you approach analyzing that data?

• How do preconceived notions play a role in this kind of analysis?

• Could you do this kind of thing without video?
  – What /could/ you do without video?

• What other questions do you have now that you have seen the video a few times?
NEXT TIME

• Lecture will cover:
  – intro to experiments

• prep posted by Thursday
  – one reading + Stage I of a tutorial (*allow more time*)
    • both evaluated with a quiz; no open-ended questions this week
  – many of the statistical concepts in Newman & Lamming should be review from stats prereq