FIELD STUDIES

CPSC 544 FUNDAMENTALS IN DESIGNING INTERACTIVE COMPUTATION TECHNOLOGY FOR PEOPLE (HUMAN COMPUTER INTERACTION)

WEEK 02 – CLASS 3
TODAY

• Ethics of working with participants

• Field studies
  • Ethnography
  • Data collection techniques
  • Unstructured data collection

• In class activity

• Discussion of readings

• Project overview + group formation
DUE BY NOW...

TCPS2

- 19 certificates are in
- Others, need to be done prior to starting the observation assignment

Researcher journals

- New: researcher journal will be used only for reading reflection.
- You should all see my “JM” comments at bottom or Reading # 4, 5
- If you are not seeing those comments, it means that we are not seeing your RJ -> come see Leila after class
- Questions?

[NOTE: Joanna is not able to stay after class today. This will be the case approximately at least 2 Thursday’s per month.]
ETHICS – WORKING WITH HUMAN PARTICIPANTS AT UBC

• Doing research with humans involves a review process.

• HCI research falls (mostly) under the Behavioural Ethics Research Board at UBC.

• We have a protocol approved for all the HCI courses in CS.

• You will need to read it and follow it before you start working with participants (although participant observation in public places does not require use of consent forms)

• https://www.ugrad.cs.ubc.ca/~cs444/resources.html#ethics
HCI COURSE ETHICS - VIDEO

Videos that identify participants cannot be shown outside of class (and definitely cannot be posted on your blog).
ETHICS – DISCUSSION [5 MIN]

In terms of the Mackay reading and the TCPS2 tutorial…

• What surprised you? or
• What did you disagree with?
• Other?
WHAT IS A FIELD STUDY?

- field study is a general term that denotes a study that takes place in context

- value of context? what people say and what they do can vary significantly
WHEN TO USE FIELD METHODS

• most often for pre-design but can be used at any stage

• interviews & observations are often used throughout the design/evaluation cycle
  • there is a difference between using these methods in and out of context
DOING FIELD WORK

General steps and considerations:

- Determine research objectives
- Develop focal points
- Identify participants and sampling strategy, recruit participants
- Determine data collection methods and design materials
  - E.g., creating interview questions
- Other pragmatics
  - How will data be recorded?
  - What do you need to bring?
  - Ethics
- Piloting
- Post-session debriefing
- Data analysis
RESEARCH OBJECTIVES

formulate research objectives:

- states what one wants to achieve
- use objectives to set initial scope

e.g., to understand how doctors manage patient records and the implications this activity has for the design of electronic health records
IDENTIFY FOCAL POINTS

2-5 questions that are expected to drive the study
(think focus & scope):

• driven by research objectives or development goals
• centered on general issues
• answers not anticipated or assumed

e.g., what are the triggers that result in a doctor updating (or referencing) a patient record? others?
RECRUITING PARTICIPANTS

• can be more involved than for lab studies:
  • higher threshold, participants allowing you into their “space”
  • often involves more time than a lab study
  • consider appropriate incentive (lab study norms not necessarily appropriate: e.g., $10/hr)

• usually far fewer participants than in a lab study, 3-12 is common
IDENTIFY PARTICIPANTS

Subcultures

• Social groups defined by cultural similarities (e.g. Punk Rocker, Harley drivers, …)
• Share norms: clothes, behaviors, activities, language, place (e.g. Italians, …)

Practices

Social practices: cooking, skateboarders, DIY makers

• Materials (e.g. things, computers, artifacts, environment…)
• Competences (e.g. skills, knowledge, technology)
• Motivations
SAMPLING METHODS

• finding participants:
  • Quota
  • Purposive
  • Convenience
  • Snowball

• if you have specific groups of interest
  • need some kind of screener that identifies

• important parameters in your target population
  • Why do we use different methods?
NOTE ON TERMINOLOGY
(FOR THIS CLASS)

METHODS

METHODOLOGY
WHAT IS ETHNOGRAPHY?

• roots in anthropology – exploration of the everyday realities of people living in small scale, non-western societies
  • ethnographers “figuring out” what is going on through participation in social life e.g., by observing, participating, and talking with people.

• today, ethnographic approach is much broader:
  • being applied to large industrialized societies (e.g., workplaces, senior centers, schools; and activities like teaching, financial investing)

• Studies the culture (values, beliefs, behaviors, language) of distinct group within society. The distinct group of people have usually been together over an extended period of time, having similar beliefs, attitudes, behaviors, language.
WHAT IS ETHNOGRAPHY

1. Descriptive
detailed description of event; get some insight into their meanings of what going on.

2. Method of discovery
when you are not sure what happening

3. Comparative

4. Naturalistic setting

5. Empathetic

6. No assumption
NOTE ON TERMINOLOGY:

• variation in language:
  • some refer to all field work as ethnography, which isn’t correct
  • There are multiple terms uses:
    • design ethnography
    • applied ethnography (Norman)
    • ethnographically-informed
    • ethnographic approach

• e.g. an interview in context is not an ethnography
  • it has to involve some observation
DESIGN MOTIVATIONS

• Having in mind: Identify design opportunities
  • We are doing it in a more applied way
GAINING ACCESS

• Entry: the process of developing presence and relationship in the designated research setting that makes it possible for the researchers to collect data.

• Field: the natural, non laboratory setting or location where the activities which a researcher is interested take place.

• Building rapport: Develop good personal relationship with people to get access and information.
DATA COLLECTION METHODS

select methods that will address focal points and that will be appropriate for chosen site, e.g.,

- observation
- interviews
- self-report techniques
  - Diaries and visual stories
- remote data collection techniques
- artifact analysis
OBSERVATION

• goal to capture tacit knowledge and ward against participants trying to please observer

• duration can vary dramatically (small # of days to a year or more!)

• can be person/event/place/or object focused
  • can you think of an example for each?
SPECIFICS ON OBSERVATION

look for what people do, not what they say

• direct observations
  • researcher on site, in context
  • participate as little as possible
  • take notes, audio tape conversational components, collect artifacts, take pictures of artifacts that cannot be taken, sometimes videotape as a backup

• video observations
  • researcher not present, video camera capturing instead
  • can be less intrusive for participant
WHAT TO OBSERVE

ROUTINES + PATTERNS

Language
- what they and how they say things (do, think, believe)

Actions and activities
- What they do
- how they behave

Things and environments
- what artifacts? Spaces?
- How are these artifacts and spaces: shaped and used
DATA COLLECTION TECHNIQUES

- Notes (e.g. bullet point, what people say)
- Still camera
- Audio
- Video
- Tracking users (e.g. diaries)
FIELD NOTES

• No point in observation if you don’t record
• Develop powers of observation, practice mental notes.
• Describe behaviorally: try to avoid interpreting meaning of action.
• Description of individual (in detail).
• Describe physical state of environment (in detail).
• Keep your interpretation separate from notes.
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
OBSERVATION ACTIVITY [20 MIN]

• Imagine you are creating a multiuser interactive table top puzzle and you are trying to understand how people work on puzzles together in a real world...

• Here an example focal point:
  • How do people arrange the activity in the physical space?
• Come up with 1 or 2 focal points on your own.

• In group of 6-8, and:
  • 3-4 members play and solve a puzzle.
  • 3-4 members observe the first team while playing with puzzles and take notes on interaction, actions, behaviour, and conversation among them.
DISCUSSION ON ETHNOGRAPHY READINGS [20 MIN]

Get into group of 3-4 answering the following questions:

- What surprised you? or
- What you disagreed with?
- other questions that arose from the readings
PROJECT OVERVIEW

- Project description and the first interim milestone:
  - https://blogs.ubc.ca/cpsc544/project/

- First interim milestone: due next Thursday
TEAM FORMATION

Teams for project formed by students

• Form teams: due by/before Tuesday’s class
  • 3-4 member per team
• combination of different skills and knowledge.
• complete the team contract: due before next Thursday’s class
• choose a project topic (design opportunity) listed in the project description.
ON DECK...

Next week’s class (Tuesday) …

1. Readings (as posted) and researcher journals
2. Review HCI course ethics materials
3. Team formation (3-4 members per team)
4. Note: Team contract is due on Thursday
EXTRA SLIDES
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. ...
COMMON FIELD STUDY
“METHODOLOGIES”

• ethnography
• observational study
• (in-depth) interview study
• contextual inquiry
• diary study
• field experiment (likely discuss later)
  • these are not mutually exclusive
  • for a given field study, methodologies will differ
    • e.g., on the methods used or the “depth” of the field work conducted