CS 554m

field studies – I

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field studies – learning objectives

explain what field work is
identify and explain different field study variants
identify the principles of field work and how they differ from laboratory work
explain the different methods used in field work
explain different sampling methods
know how to prepare and run a field session
identify a good interview question from a bad one
know what to do once you’ve captured the data
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
compare & contrast

studying a smartphone application in the lab compared to in the field

identify the pros and cons of each approach
principles of field work

natural settings –

holistic –

descriptive –

members’ point of view –
field study “variants”

ethnography
observational study
(in-depth) interview study
contextual inquiry
diary study
field experiment (upcoming lecture)

- these are not mutually exclusive
- can differ on the methods used and the “depth” of the field work conducted
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 (by observing, participating, and talking with people)

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

variation in language:

some refer to all field work as ethnography, which isn’t correct

it is common to equate field study with ethnographically-informed study or a study that takes an ethnographic approach
getting started: 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 medical 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?
- more on focal points in Field I tutorial
participants

devise a sampling strategy
• what types of participants?
• how many participants?
• non-probability based sampling method

gaining access to field site and participants
- time consuming
- ethics considerations
sampling methods

finding participants:
- **quota**: specify groups of interest and how many / group
- **purposive**: similar but # / group not specified
- **convenience**: sample as you go (e.g., in shopping mall)
- **snowball**: sample as you go, participants refer other participants

need a screener that identifies important parameters in your target population
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
data collection methods

select methods that will address focal points and that will be appropriate for chosen site

observation
interviews
self-report techniques
remote techniques

nearly all field work involves observation & interviews
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!)

degree of involvement: observer-participant to participant-observer
  • can you identify the pros & cons?

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
interviews

continuum: unstructured, semi-structured, structured

early stages of research use unstructured – why?

later stage more structured – why?
interviewing is an art: guidelines

interview in everyday, familiar settings – take cues from context
look for specific examples & artifacts
do not pre-suppose answer
  • How often do you use your mobile phone to call family members?
    VERSUS What are the ways in which you communicate with your loved ones?
be open-ended - avoid yes/no questions
be flexible to adapt line of questioning
establish and maintain good rapport
casual conversation is not bad
assume respondent is expert
do not interrupt unnecessarily
plan questions that allow triangulation – ask the same question in different ways
Imagine you are trying to understand how home inhabitants communicate with one another using post-it notes. Which interview question is most appropriate?

1. Can you show me where you leave information for someone else?
2. Can you show me where others leave information for you?
3. Where do you leave information for someone else?
4. Where do people leave information for other people?
self-report techniques

diaries
- participant’s written record of specific events, or can be what is happening at prompted moments
- free form or structured recordings
- e.g., study on exploratory learning “Eureka” moments (Rieman & Lewis, 1996)

visual stories
- pictorial diaries, use a camera in addition to text
- e.g., study using video to document file retrieval (Blomberg, Suchman, and Trigg, 1996)
remote data collection

remote video and audio via the Internet
remote interactions collected through logging
- e.g. MSWord Personal study (McGrenere, Baecker, & Booth, 2002) – a reading in this course
- Google does studies ALL THE TIME
contextual inquiry

**structured** method for gathering information in field work

goal: to bring it to the design process

between observation and interview: idea is to intensely interview people while they work

principles:

1. context
2. partnership: share control, participant is expert
3. focus: keep sight on research objectives, do not try and understand full culture
preparing for field work

how will data be recorded?
• handwritten notes (free form, coding sheet)
• audio tape
• video capture
• still photos
what do you need to bring?

consent forms
screening forms (if participant selection not done in advance)
audio/video equipment
• extra tapes, microphone?, extra batteries, tripod
note taking equipment
instruments: interview scripts, questionnaire?

-> just because it is a qualitative method does not mean that detailed preparation is not required!
primary and secondary interviewing roles

there is too much for one person to do!

primary
- usually the person who has contacted the participant
- guides the discussion

secondary
- responsible for most data capture (all recording devices, primary notes, artifact collection)
pilot testing

is just as important as it is in lab studies!

check for
- duration
- clarity of interview questions, non-repetitive, ability to deliver the script fluidly
- utility of observation sheet
- robustness and ability to operate recording equipment
- bottom line: do you get meaningful data?
post session

• **debrief** immediately with partner/team
• type notes right away – **expand** as appropriate (make sure to note clearly what are expansions b/c they are subject to recall)
• check your **recordings** and **label** media
• make a **log** of all the items from the session (artifacts, audio/video tapes, still images, notes…)
• write up **reflection** on session (things that were not clear, surprising, …)
• plan for **transcripts** of dialog, as appropriate
data analysis

circulate notes and transcriptions among team
hold video analysis sessions
identify patterns: in behaviour, events, artifacts, within and across individuals

common technique: affinity diagrams

triangulate data where possible
data analysis

grounded theory approach
   (Lazar, Feng and Hochheiser reading)

  • open coding
  • development of concepts
  • grouping concepts into categories
  • formation of a theory
representations – communicating results

storyboards
scenarios
profiles/personas
experience models
opportunity maps
- details on each of these in the Blomberg paper

finally, team brainstorms implications for design
ethics

as with all studies, need ethics approval
describe
  • how person will participate
  • duration of participation
  • how the data will be used
  • if images, video or audio taping will be used
when to use field methods

most often for pre-design
   cost-benefit tradeoff easiest to make
but can be used at any stage

note: interviews & observations are often used throughout the design/evaluation cycle – but there is a difference between using these methods in and out of context
pros & cons of fieldwork

pros ???

cons ???
now you can…

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