07- (Ethics and) Qualitative Studies

Lorrie Cranor, Blase Ur, and Rich Shay

February 3, 2015

05-436 / 05-836 / 08-534 / 08-734
Usable Privacy and Security
Today’s class

• Ethics (from last Tuesday)
• Surveys
• Interviews
• Diary studies
Participants, ethics, and deception
Participants

• Recruit people to do something remotely (e.g., online)
Participants

• Recruit people to do something remotely (e.g., online)

• Recruit people to come to your lab
Participants

• Recruit people to do something remotely (e.g., online)
• Recruit people to come to your lab
• Recruit people to let you into their “context”
Participants

• Recruit people to do something remotely (e.g., online)
• Recruit people to come to your lab
• Recruit people to let you into their “context”
• Observe people (if possible, get consent! If not possible, consider necessity of design)
Participants

• What recruitment mechanisms?
  – Craigslist, flyers, participant pools, representative sample, standing on street
Participants

• What recruitment mechanisms?
  – Craigslist, flyers, participant pools, representative sample, standing on street

• How do you compensate them?
  – Ethics of paying $0.00 vs. $10.00 vs. $100,000
Participants

• What recruitment mechanisms?
  – Craigslist, flyers, participant pools, representative sample, standing on street

• How do you compensate them?
  – Ethics of paying $0.00 vs. $10.00 vs. $100,000

• How do you get informed consent?
Participants

• What recruitment mechanisms?
  – Craigslist, flyers, participant pools, representative sample, standing on street

• How do you compensate them?
  – Ethics of paying $0.00 vs. $10.00 vs. $100,000

• How do you get informed consent?

• What happens to their data?
Participants

• What recruitment mechanisms?
  – Craigslist, flyers, participant pools, representative sample, standing on street

• How do you compensate them?
  – Ethics of paying $0.00 vs. $10.00 vs. $100,000

• How do you get informed consent?

• What happens to their data?

• Prior knowledge / “what” are they?
Ethics

• How do we protect participants?
  – What risks do we introduce?
Ethics

• How do we protect participants?
  – What risks do we introduce?
• Is there a less invasive method that would give equivalent insight?
Ethics

• How do we protect participants?
  – What risks do we introduce?
• Is there a less invasive method that would give equivalent insight?
• IRB is one arbiter of ethics; experimenters themselves are another crucial arbiter
Ethics

• How do we protect participants?
  – What risks do we introduce?
• Is there a less invasive method that would give equivalent insight?
• IRB is one arbiter of ethics; experimenters themselves are another crucial arbiter
• How do we make sure participation is voluntary throughout the experiment?
Deception

• Do we mind if participants know precisely what is being studied?
  – Sometimes, it’s crucial that we observe their organic responses in context
Deception

• Do we mind if participants know precisely what is being studied?
  – Sometimes, it’s crucial that we observe their organic responses in context

• What “deception” or “distraction” task can we introduce?
Deception

• Do we mind if participants know precisely what is being studied?
  – Sometimes, it’s crucial that we observe their organic responses in context

• What “deception” or “distraction” task can we introduce?

• How do we maintain ethics?
Deception

• Do we mind if participants know precisely what is being studied?
  – Sometimes, it’s crucial that we observe their organic responses in context

• What “deception” or “distraction” task can we introduce?

• How do we maintain ethics?

• How do we debrief people at the end?
An entire university’s passwords

• 25,000 faculty, staff, students at CMU
• What are their password characteristics?
• How guessable are their passwords?
• How do demographic factors correlate with password strength?
• How do these real passwords compare to leaked/collected passwords?
It’s official: Computer scientists pick stronger passwords.

Landmark study says people in business school choose weakest passwords.

by Dan Goodin - Nov 8, 2013, 12:28pm EST
Ethics questions

• How did we get people’s passwords?
Ethics questions

• How did we get people’s passwords?
• How did we obtain consent?
Ethics questions

• How did we get people’s passwords?
• How did we obtain consent?
• What ethical concerns are there?
  – What seemed to be done well?
  – What could have been done better?
Social phishing

• Use social networking sites to get information for targeted phishing
  – “In the study described here we simply harvested freely available acquaintance data by crawling social network Web sites.”
Social phishing

- Use social networking sites to get information for targeted phishing
  - “In the study described here we simply harvested freely available acquaintance data by crawling social network Web sites.”
- “We launched an actual (but harmless) phishing attack targeting college students aged 18–24 years old.”
Social phishing

• Control group: message from stranger
• Experimental group: message from a friend
Social phishing

- Control group: message from stranger
- Experimental group: message from a friend
- Used university’s sign-on service to verify passwords phished
Ethics

• How did they obtain consent?
Ethics

• How did they obtain consent?
• What ethical concerns are there?
  – What seemed to be done well?
  – What could have been done better?
Ethics

• How did they obtain consent?
• What ethical concerns are there?
  – What seemed to be done well?
  – What could have been done better?
• Who was potentially affected by the study?
Ethics

• How did they obtain consent?

• What ethical concerns are there?
  – What seemed to be done well?
  – What could have been done better?

• Who was potentially affected by the study?

• “The number of complaints made to the campus support center was also small (30 complaints, or 1.7% of the participants).”
Surveys
Why do a survey?

- Obtain a little bit of data each from a lot of participants
  - Quantify attitudes and opinions
  - If done properly, lets you generalize
  - Quick, easy, unobtrusive, relatively cheap
- However, shallow data & biases (self-reported data, unanswerable questions)
- Multiple choice & open-ended questions
In groups of 2-3, write a 5-question survey about participants’ feelings about online tracking
Survey best practices

• Pilot, pilot, pilot!
  – Test different ways of wording questions
• Think about your sample
• Include attention checks
• Be cognizant of length
• There shouldn’t be an “easy way to answer”
  – Branch questions in equal ways
“I read my Twitter the next morning and was astonished” A Conversational Perspective on Twitter Regrets

Sleeper et al.

CHI 2013
Twitter regrets

• MTurk survey of 1,221 participants

• Compared conversational regrets and Twitter regrets

• Messages that gave TMI “were reported at a higher rate for Twitter”

• Strategies for avoiding and coping with regret on Twitter
Twitter regrets

• Note the hypotheses in the introduction
• Why did they screen for Twitter users age 18+ in the USA?
  – How do you screen/advertise?
• Is conversational regret the right parallel?
• Do findings reflect all regrets?
• How was MTurk quality control done?
Twitter regrets

• How was the data coded?
• Self-reported data
• Reverse causality (regret → state of being?)
• Discussion of strategies
The Post Anachronism: The Temporal Dimension of Facebook Privacy

Bauer et al.

WPES 2013
Temporality

- Survey of participants’ own content
- Recruited on Craigslist and MTurk
- How privacy preferences change (or don’t change) as content ages
- Three surveys over time, plus a final survey to investigate changes
Temporality

• “At the time you made this post, who did you want to be able to see it on Facebook?”

• “Please indicate how much you agree or disagree that each of the following impacted your change in preferences…This post did not depict me in the manner I wanted…”

• “Please describe why your preference for who you wanted to be able to see this post on Facebook changed.”
Interviews
Why do an interview?

• Obtain rich data from a few participants when you aren’t sure what you’ll find
  – Explore an area
  – If done properly, lets you identify themes
  – Come up with entirely new perspectives

• In most cases cannot quantitatively generalize frequencies of opinions

• Easy to be biased (conducting/reporting)

• Structured vs. semi-structured
I need a volunteer for an interview about online tracking
Interview best practices

• Make participants feel comfortable
• Avoid leading questions. Stay neutral!
• Support whatever participants say (don’t make them feel like they’re incorrect)
• Know when to follow up
• Interview a broad range of people
“I regretted the minute I pressed share”: A Qualitative Study of Regrets on Facebook

Wang et al.

SOUPS 2011
Facebook regrets

• Interviews, user diaries, and online surveys
• 569 American Facebook users
• Why they make posts they later regret (and how to help them avoid these regrets)
  – “Hot” states, etc.
Facebook regrets

• 268 responses on Facebook’s blog asking privacy questions → 3 main themes

• 18+ American Facebook users from Mturk
  – Paid $0.50
  – 321 valid responses after looking at short completion time, inconsistent answers, or off-topic answers to free-response questions
Facebook regrets

- Pre-questionnaire for interviews
- Used Pittsburgh Craigslist
- “Selected” 19 users from 301 prospective participants
- Compensated $20
- Audio recorded and transcribed interviews, along with screen shots
Facebook regrets

• “One author coded the interviewee data and categorized it post-hoc into a list of common themes.”
Facebook regrets

• Diary study
  – 12 of the 19 participants from the interview participated at least one day
  – Friend requests, activities, changes to profile or settings
  – “Have you posted something on Facebook and then regretted doing it? Why and what happened?”
  – 22+ days of entries → $15
Facebook regrets

• Survey 2 about regrets
• Compensation $0.50
• 492 valid responses from MTurk
Diary studies
Why do a diary study?

• Rich longitudinal data from a few participants to test “in the field-ish”
  – Explore natural reactions and occurrences
  – Examine over longer time periods
  – “Existence and quantity” of phenomena

• Requires lots of work from participants

• Requires lots of work from researchers

• On paper vs. technology-mediated
Best practices

• Think about when they do/don’t need to record a diary entry
  – Frequency of entries
• Think about how long it will take to record a diary entry
• How structured should their entry be?
• Pay participants well
The Many Faces of Facebook: Experiencing Social Media as Performance, Exhibition, and Personal Archive

Zhao et al.

CHI 2013
Many Faces

- Diary study of 13 participants
- Goffman’s performance region, Hogan’s exhibition region
  - Added personal region
- Conducted 6 months after Timeline
  - 7 of 13 participants had already adopted Timeline; others were asked to adopt it
Many Faces

• Used Facebook ads to recruit in local community (Ithaca, NY)
  – Used Facebook for years, “generated significant amount of social media content”

• Participants compensated $15
  – Pre-survey (demographics, Facebook use)
  – Daily online diary for two weeks about “whether they had updated or changed their profiles… reviewed their own or others’ past content… managed past content”
Many Faces

• One-hour interview in lab at end
  – Logged into Facebook account
  – Asked general questions about Facebook management, as well as questions about past content, offline archiving, other social tools
Many Faces

• Iterative analysis
  – Four researchers met for open coding
  – Iteratively refined categories and subcategories
  – Then two researchers coded each interview with TAMS Analyzer
  – Face-to-face meetings with concept charting