

07- Qualitative Studies

Manya Sleeper

(slides adapted from Lorrie Cranor, Blase Ur, and Rich Shay)

February 3, 2016

05-436 / 05-836 / 08-534 / 08-734

Usable Privacy and Security

Carnegie
Mellon
University
CyLab

isr institute for
SOFTWARE
RESEARCH

Engineering &
Public Policy



Qualitative vs quantitative

- Quantitative: you want numbers (timing data, ratings of awesomeness, etc.)
- Qualitative: you want non-numerical data (thoughts, opinions, types of errors, etc.)

Types of qualitative studies

- Surveys
- Interviews
- Diary studies

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

Activity!

1. Write down a research question related to privacy

2. Write down 2-3 survey questions that would address your research question (short free response, multiple choice)

3. (For now) Just hold on to the questions

Survey best practices

- Be cognizant of:
 - Question and survey length (fatigue)
 - Question order (priming participants)
 - Question wording (clarity, double-barreled questions, leading questions, etc.)
- Pilot, pilot, pilot!
 - Test different ways of wording questions
 - Test your survey as a “think aloud” before launch

4. Update your questions based on what we talked about, keeping in mind: length/clarity, no leading questions, no double-barreled questions, etc.

5. In groups of 2-3 test your questions on each other thinkaloud style

Survey best practices (cont.)

- Think about your sample (population vs sample)
- There shouldn't be an “easy way to answer”
 - Branch questions in equal ways
 - Include attention checks (e.g., multiple choice questions with wrong answers or free response questions)

“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:
 - Each participant described one regret (either Twitter or conversation)
 - Responded to a set of free response questions
- Compared conversational regrets and Twitter regrets

Twitter regrets

- Why did we 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 analyzed?
- Self-reported data
- Theory-driven

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, allows you to explore an area
 - If done properly, lets you identify themes
- In most cases can't quantitatively generalize frequencies of opinions
- Easy to be biased (conducting/reporting)
- Structured vs. semi-structured

Interview best practices

- Make participants feel comfortable
- Avoid leading questions. Stay neutral!
- Don't make participants feel incorrect (or like there's a potential wrong answer)
- Know when to follow up
- Avoid yes/no questions
- Interview a broad range of people

So if we were going to do an interview...

(Barebones) sample interview format

INTRO: Hi my name is Manya, welcome to the study. Today we're going to talk about...

INFORMED CONSENT: [DESCRIBE THE CONSENT FORM AND GET CONSENT]

INTERVIEW QUESTIONS: ...

DEBRIEF: That's all. Thanks for your time – do you have any questions for me?
[ETHICAL DEBRIEF AS NECESSARY]

“I regretted the minute I pressed share”: A Qualitative Study of Regrets on Facebook

Wang et al.

SOUPS 2011

Facebook regrets

- Multiple methods:
 - Reader comments from the New York Times
 - Online Survey
 - Semi-structured interviews
 - Diaries

Facebook regrets

- Survey based on 268 reader-submitted questions for Facebook's VP for Public Policy (three 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:
 - Pittsburgh Craigslist
 - “Selected” 19 users from 301
 - Compensated \$20
 - Audio recorded and transcribed interviews, along with screen shots
- Asked about motivations, use of Facebook, Facebook privacy expectations and use of settings, own/friends’ regret experiences

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 work from participants
- Requires work from researchers

Diary study formats

- Paper-based or technology-mediated:
 - Applications (e.g., Paco)
 - Other tech (e.g., voice mail, camera, etc.)
 - Paper diary
- Method of recording: written, spoken, video, audio, etc.:
 - Legal considerations (who might be taped)
 - Technology

Diary study best practices

- Think about when diary is necessary
 - Frequency of entries
 - Regular, random, event-based alerts
- Length and structure of entry:
 - Possible structures: (very) brief survey, written or audio note, rating on a scale, etc.
 - Should be unobtrusive (<2 min, <10 alerts/day)
- Pay should match level of work

Consolvo and Walker. Using the Experience Sampling Method to Evaluate Ubicomp Applications. IEEE Pervasive Computing 2 (2003): 24-31.

The Many Faces of Facebook: Experiencing Social Media as Performance, Exhibition, and Personal Archive

Zhao et al.

CHI 2013

Many Faces

- Diary and interview 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)
 - Participants that used FB 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
 - Reviewed Facebook profile
 - 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