



## Qualitative Studies

# Today...

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- Qualitative Studies
  - Surveys
  - Interviews
  - Diary Studies
  - Focus Groups
- Crowdsourced Studies

# Qualitative vs. Quantitative...

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- **Qualitative:** You want non-numeric data (thoughts, opinions, types of error, etc)
  
- **Example:**
  - Observing participants in controlled/natural environment
  
  - Collaborative enquiry
  
  - A study of particular people and their understanding of privacy

# Qualitative vs. Quantitative...

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- **Quantitative:** You want numbers (timing data, ratings of what users like, etc.)
- **Goal:** Find numbers that can be analyzed statistically to discover patterns
- **Example:**
  - What percentage users “like” our new privacy model?
- **Mixed Methods:** A Combination of Qualitative and Quantitative methods.

# Types of Qualitative Studies...

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- Surveys
- Interviews
- Diary Studies
- Crowdsourced studies

# Surveys – Why do one?

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- 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 and biases (self reported data, unanswerable questions)
- Multiple choice & open-ended questions

## Surveys – Best Practices...

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- Points to consider...
  - Question and survey length (fatigue)
  - Question order (priming participants)
  - Question wording (clarity, leading questions, etc.)
- Pilot studies...
  - Test different ways of wording questions
  - Test your survey as a “think aloud” before launch

- 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 question with wrong answers or free response questions)



“I read my Twitter the next morning  
and was astonished” A  
Conversational Perspective on  
Twitter Regrets

# Twitter Regrets

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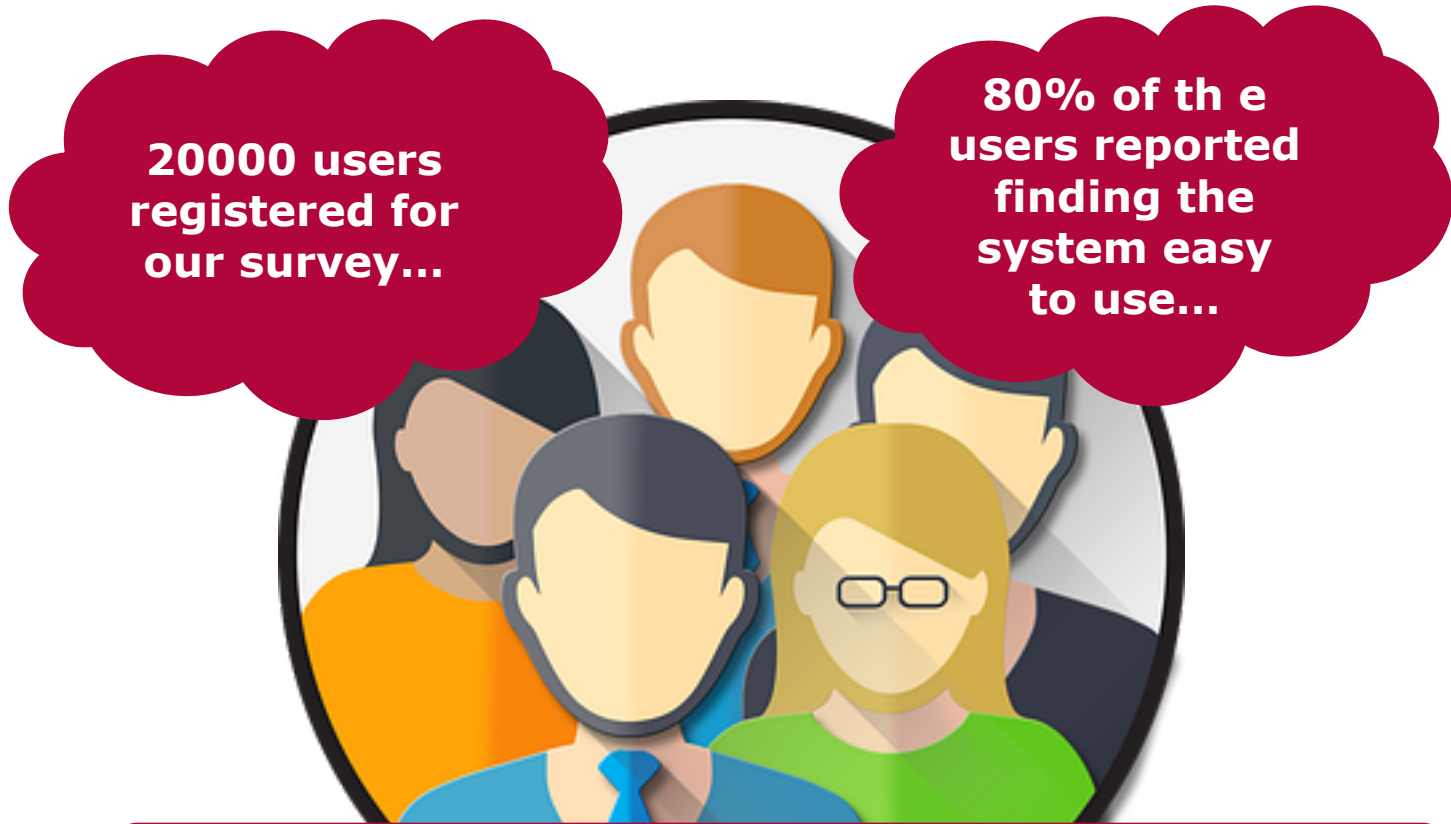
- Mturk survey of 1,221 participants:
  - Each participant described one regret (either Twitter or conversation)
  - Responded to a set of free response questions
- Compared conversational regrets and Twitter regrets

# Twitter Regrets

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- Why did the authors screen for Twitter users age 18+ in the USA?
  - How is screening/advertising done?
- Is conversational regret the right aspect to compare against?
- Do the results (findings) reflect all regrets?
- How was MTurk quality control done?

# Example



**Conclusion: This is a good privacy mechanism?**

# Twitter Regrets

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- How was the data analysed?
- Self-reported data
- Theory driven

# The Post Anachronism: The Temporal Dimension of Facebook Privacy

# Temporality

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- 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

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- “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 on 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...

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- 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

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- Make participants feel comfortable
- Avoid leading questions. Stay neutral!
- Don't make participants feel incorrect (or as though 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...

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## Sample Interview Format...

**Introduction:** Say who you are, welcome the participant and tell them what the study is about...

**Informed Consent:** Describe the consent form and get consent from the user (signature)...

**Interview Questions:** (Motivations, Use of Facebook, Privacy Expectations, use of settings, regret experiences...)

**Conclude:** Thank the participant for their time and ask if he/she has any questions.

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

## Facebook Regrets...

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

# Facebook Regrets

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- Survey based on 268 reader-submitted questions for Facebook's VP for Public Policy (three themes)
- 18+ American Facebook users for Mturk
  - 321 valid responses after looking at:
    - Short completion time
    - Inconsistent answers
    - Off-topic answers to free-response questions

# Facebook Regrets

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- Pre-questionnaire for interviews:
  - Pittsburgh Craigslist
  - “Selected” 19 users from 301
  - Audio recorded and transcribed interviews, along with screen shots
- Asked about :
  - Motivations
  - Use of Facebook
  - Facebook privacy expectations
  - Use of privacy settings
  - Own/friend`s regret experiences

# Diary Studies...

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- Rich longitudinal data from a few participants to test
  - 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

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- 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...

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- Think about when a 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 (<2min, <10alerts/day)
- Compensation (pay) should match level of work

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

# Many Faces...

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- 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

# Diary Study Best Practices...

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- Think about when a diary is necessary
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## Many Faces...

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- 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 week about
    - whether they had updated or changed their profiles...
    - reviewed their own or others’ past content...
    - managed past content

## Many Faces...

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- One-hour interview in lab at end
  - Logged into Facebook account
  - Reviewed Facebook profile
  - Asked general questions about Facebook management
  - Asked questions about past content
  - Asked about offline archiving
  - Asked about other social tools

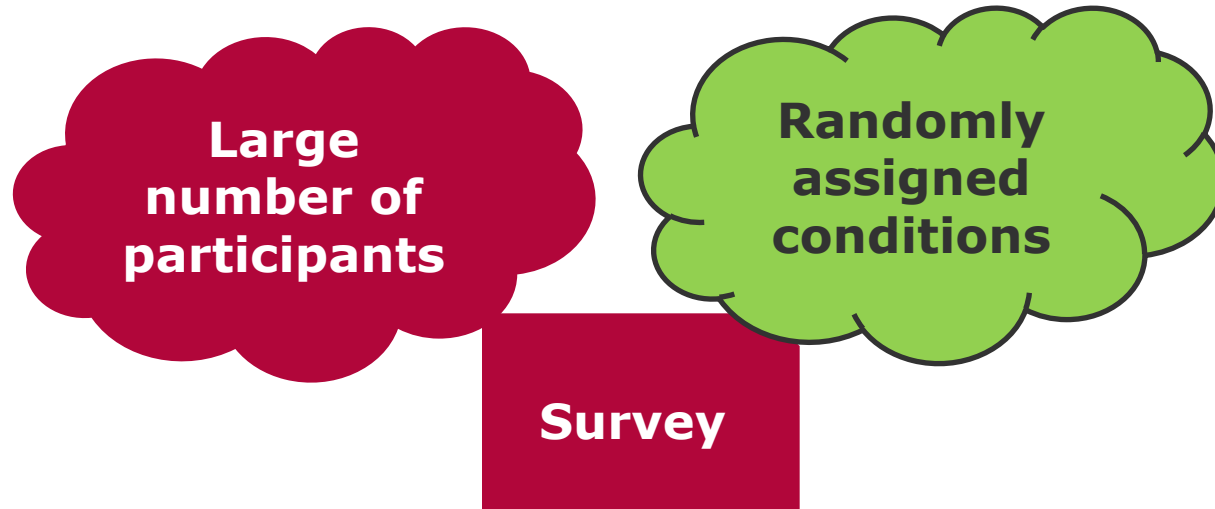
## Many Faces...

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- 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



# When is Crowdsourcing good to use?



- How do we get many participants with randomly assigned conditions?

# Example: Two-Factor Authentication

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- **Research Question:**
  - “Can Two-Factor Authentication be secure and usable on social media platforms?”
- Ok let’s consider some possibilities...
  1. Laboratory study (Pros? / Cons?)
  2. Online Survey (e.g. SurveyGizmo, Google Consumer Surveys)
  3. Study Users in their “natural environment”
- Crowdsourcing:
  - Large pool of participants (across the world)
  - Combines good aspects from “lab studies” and “Online Surveys”

## Limitations of Crowdsourced Studies

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- No follow-ups / can't observe participants
  - Piloting helps with this!
- Some users will enter answers that do not make sense
  - Collect more data to help avoid
- Mturk population younger, more tech-savvy, but still more diverse than typical lab study
- **Note:** Still need to have a user consent form
  - Can recruit on Mturk and then redirect to a survey website / build your own system to manage thousands of participants

## Paying Participants and Other Useful Features

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- When the participant has finished, you notify Mturk and the participant is paid
- The payment is taken from your pre-paid MTurk account
- Other Features:
  - Screen workers
  - Reject workers
  - Send workers notifications
  - Prevent repeated worker for the same task
    - Often need to post many tasks for the same study

# Next Week...

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- Quantitative Research Methods
  - Hypothesis testing and research questions
  - A discussion of data-collection in your readings
    - Why would you opt for one data-collection protocol over another?
    - What is the role of deception in data-collection?
    - What are the ethical considerations?

## Think About... (For next week...)

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- Your project...
  - What would you like to do? Why?
  - Think of several options... make notes
  - What do you need? Initial usability data? Prototype?
  - Interesting adversarial scenarios?
  - Solutions to protect data?

## Think About... (For next week...)

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- What usability testing research approach?
  - Qualitative, Quantitative, Mixed Method? Why?
- Design and conduct a 30-participant survey on Mechanical Turk to answer a research question based on your project.
- Bring the results to class (presentation)
- You can use (Notes2.pdf) as a guideline