

# Lecture 4: Interviews

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CS 181W

Fall 2022

# What is usable?

- Intuitive / obvious
- Learnable
- Memorable
- Efficient
- Few errors
- Enjoyable / Not annoying
- Status transparent
- Meets users needs (utility)

# What is usable security/privacy?

Security/privacy software is usable if the people who are expected to use it:

1. are reliably made **aware of the security/privacy tasks** they need to perform;
2. are **able to figure out** how to successfully perform those tasks;
3. **don't make dangerous errors**; and
4. are sufficiently comfortable with the interface to **continue using it**.

# Reasons to conduct user studies

## **Assess needs**

What should we build?

## **Examine tradeoffs**

Which features/approaches best fit particular needs?

## **Evaluate**

Are requirements met?  
What should be improved?

## **Find root causes**

What underlying problems need to be fixed?

# Types of studies

- **Interviews:** conversations with individuals
- **Focus groups:** discussions with groups
- **Surveys:** asynchronous questions
  
- **Experimental Studies:** randomized multi-condition studies
- **Usability Testing:** observations of tool use
- **Cognitive Walkthrough:** expert evaluation
  
- **Diary Studies:** contemporary record of real-world behavior
- **Observational Studies:** records of behavior in the wild
  
- Mixed-methods studies

# INTERVIEWS

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# Why do an interview?

- Obtain rich data
  - interviewees can go on at length, generating ideas and sharing insights
  - especially when you aren't sure what you'll find
  - e.g., allows you to probe mental models, what people think and why
- Explore issues and new lines of inquiry on the fly
  - ask clarifying questions
  - ask follow-up questions
- Can generally be done either face-to-face or online

# Interview limitations

- Time consuming to conduct
  - large number of interviews generally not feasible
  - generally can't quantitatively measure frequencies of opinions
- Time consuming to analyze
  - generalize requires transcription and coding
- Hard to completely avoid bias
- Responses are inherently about perceptions
- Recall problems



# Applications of Interviews in USP

1. **Initial Exploration:** investigate new possibilities for helping people enhance their security or privacy

# Example: Dobbs v. Privacy

- Dobbs v. Jackson Women's Health Organization was decided by the U.S. Supreme Court in June 2022
- Held that the U.S. Constitution does not confer a right to abortion
- Overruled Roe v. Wade (1973) and Planned Parenthood v Casey (1992)



**With Roe overturned**  
**raise Digital period**

***Deleting Your Period Tracker Won't Protect You***

**When it comes to period trackers, concerns span ideological divide**

Tweets telling women to do that went viral after Roe v. Wade was overturned, but experts say other digital data are more likely to reveal an illegal abortion.

Some Catholic abortion opponents and women's rights advocates have expressed concerns over privacy and accuracy

Perspective by Katherine Dugan  
Katherine Dugan is associate professor of religion and ethics at Boston College (Mass.), where she studies contemporary religious movements.  
August 10, 2022 at 6:00 a.m. EDT

**Should I delete my period tracker questions.**

By **Kashmir Hill**  
Published June 30, 2022 Updated July 11, 2022

How police can find out what you searched for

By **Sara Morrison** | Jul 6, 2022, 12:50pm EDT

# Example: Dobbs v. Privacy

- Interview study (wip)
- Pre-interview screener
  - Have you experienced a period in the last 12 months?
  - Have you tracked your period in the last 12 months?
- Background/General questions
  - What tools have you used to track your period?
    - Clarification prompts: e.g., paper calendar, app, remember, etc.
    - [If app] Which apps have you used?

# Example: Dobbs v. Privacy

- Interview study (wip)
- Privacy questions
  - What sorts of things do you think it would be reasonable for a menstrual tracking app to do with your data?
- Change questions
  - Has Dobbs decision affected the way you track?
    - [refinement] Have you considered stopping or switching your method as a result?
    - [follow-up if yes] Did you end up doing this?
      - [If not] what stopped you?
      - [if yes] what was your experience switching (prompt: did you try to export/import your data)?

# Applications of Interviews in USP

1. **Initial Exploration:** investigate new possibilities for helping people enhance their security or privacy
2. **Requirements Gathering:** understanding user needs and concerns

# Example 1: GDPR Right to Access

GDPR Article 15: The data subject shall have the right to obtain from the controller confirmation as to whether or not personal data concerning him or her are being processed, and, where that is the case, access to the personal data and the following information:

1. the purposes of the processing;
2. the categories of personal data concerned;
3. the recipients or categories of recipient to whom the personal data have been or will be disclosed[...];
4. where possible, the envisaged period for which the personal data will be stored, or, if not possible, the criteria used to determine that period;  
[...]
7. where the personal data are not collected from the data subject, any available information as to their source;
8. the existence of automated decision-making, including profiling, referred to in [Article 22](#)(1) and (4) and, at least in those cases, meaningful information about the logic involved, as well as the significance and the envisaged consequences of such processing for the data subject.

# Example 1: GDPR Right to Access

- Alizadeh et al. GDPR Reality Check — Claiming and Investigating Personally Identifiable Information from Companies. EuroUSEC 2020. 13 participants.
- Questions about Data Collection
  - What do you think [company] collects about you?
  - How do you think this data is being used?
- Questions about Access:
  - What would you like to know about your shopping attitude?
  - What should the data takeouts look like?
- Task + Post-Interview

# Example 1: GDPR Right to Access

"I would imagine that somewhere on [company's] website there is a contact person whom I would contact and request to access the data gathered about me, and I would probably have to verify myself first. Then they will send me all the information by mail or email"

"Customer-friendly for would be: You have this [company] customer login, where you can log in and data takeouts and simply all information is displayed, basically integrated into the system... in the customer portal, where I can simply access the data whenever I wish"



# Example 2: GDPR Right to Access

- Di Martino et al. Revisiting Identification Issues in GDPR ‘Right Of Access’ Policies: A Technical and Longitudinal Analysis. PETS 2022. 3 DPO participants.
- Questions about experience with Subject Access Requests (SARs):
  - How many SARs have been received before and after the adoption of the GDPR?
  - What is the specific information that is used or required to identify or authenticate the DS in a SAR?
  - Has there been any suspicion that third parties are attempting to falsify SARs to request data from other individuals?

# Example 2: GDPR Right to Access

	Organization X (5 billion rev)	Organization Y (4 billion rev)	Organization Z (1 billion rev)
How many SARs?	55-75	<15	100-200
Authentication	email check + ID card (not verified)	email check, dropped ID per DPA rec.	email check, dropped ID per DPA rec.
Suspicion?	no signs, some DSs stop request after ID requested	none discovered	one case + one divorce case, many requests expire

# Applications of Interviews in USP


1. **Initial Exploration:** investigate new possibilities for helping people enhance their security or privacy
2. **Requirements Gathering:** understanding user needs and concerns
3. **Evaluation and Subjective Reactions:** provide feedback during development process or for completed products


# Example: Android Privacy Labels

- In April 2022, Google launched privacy labels ("Data Safety") for Android mobile apps

## Data safety →

Safety starts with understanding how developers collect and share your data. Data privacy and security practices may vary based on your use, region, and age. The developer provided this information and may update it over time.

 This app may share these data types with third parties  
Location, Personal info and 6 others

 This app may collect these data types  
Location, Personal info and 6 others

 Data is encrypted in transit

 Data can't be deleted

[See details](#)

# Example: Android Privacy Labels

- Interview study (wip)
- Background questions about app usage
- General questions about label:
  - What is your overall impression of this label?
  - Did you find anything that was surprising/unexpected?
    - [If they did] What surprised you about this?
    - [If they didn't] Why did you expect to see this information?
  - Is there other information about how this app uses data that you would like to know?
- Specific questions:
  - [Advertising/Marketing] Is there any information collected here used for advertising or marketing purposes?
    - Record whether the user could find it under “Device or Other IDs,” if they could not find it themselves, direct them to “Device or Other IDs”
  - [Missing data type – location] Do you think that [app] uses your location to personalize content/ads?

# Example: Android Privacy Labels

"My overall impression is that they collect a little more data than they need to, but I've seen worse"

"I enjoy that it is transparent, including the fact that it collects certain things like personal information"

"it's very vague"

"damn"

# Applications of Interviews in USP

1. **Initial Exploration:** investigate new possibilities for helping people enhance their security or privacy
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3. **Evaluation and Subjective Reactions:** provide feedback during development process or for completed products

# Developing an Interview Script

- Keep your questions fairly open-ended
- Can follow-up with specific probes:
  - “What files do you have on your computer that you consider valuable?”
  - Follow up with “Do you have valuable photos? Videos? School work?”
- Keep questions as simple as possible
- Avoid compound questions
- Keep questions as unbiased and unjudgmental as possible
- Make sure questions are appropriate for audience
- Write-out **all** your questions and follow-up probes



# Exercise: Interview Questions

1. Does your company use a VPN?
2. Do you delete cookies or use an ad blocker to protect your privacy?
3. Do you do insecure things like reuse your password?
4. Do you make passwords with leet?
5. Do you think privacy-invasive companies like Facebook should be allowed to collect information from children?
6. Are you concerned about your identity being stolen, making it difficult for you to get credit in the future?

# Additional Types of Questions

- Hypothetical scenarios
  - Imagine you just saw this message on your computer screen....
  - Imagine your friend called you and told you he saw this message and asked you what to do....
- Conceptual mapping: asking participants to draw pictures or graphical layouts that depict their understanding of a situation
  - Draw what privacy means to you
- Mixed-method studies

# Exercise: CCPA Right to Access

Design a short (< 15 min) interview exploring the right to access under CCPA

- **RQ1:** How well do California residents understand their right to access?
- **RQ2:** What would a good access mechanism look like?

# Interviews

