A composite image featuring a black and white photograph of a large industrial factory interior. In the foreground, several early 20th-century automobiles are parked on a wooden floor. In the background, the complex steel framework of the factory is visible. On the right side, a close-up, color portrait of Henry Ford is overlaid, showing him in profile with his hand resting on his chin in a thoughtful pose. A white, torn-edge paper graphic is positioned in the center-left, containing the quote.

**If I had asked people what they  
wanted, they would have said  
faster horses.**

**-Henry Ford**

Lecture 8.1

# Interviews in HCI

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UNIVERSITY OF AUCKLAND

COMPSCI 705 / SOFTENG 702

Dr Danielle Lottridge

# Critique this

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[After user has used “system X” for 5 minutes]

Was that easy to use?

What do you prefer, the new way to do X or system Y that you usually use?

Do you create better x's on system X compared to Y?

How would you change system X so that you would use it every day?

# Learning Objectives

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- Understand which questions people can answer accurately, and which they cannot
- Understand different forms of interviews, when to use each, their strengths and weaknesses
- Understand common techniques in interviews
- Be able to conduct various types of interviews
- Be able to generate implications for design

# Outline

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- What to ask and not to ask
  - Learning Acquisition
  - Situatedness
- Interviews: characteristics, pros, cons
  - Unstructured
  - Structured
  - Semi-structured
- Techniques
  - Critical incident
  - Task-based
  - Artifact-based







# Dreyfus' Model of Learning Acquisition

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## 5 stages

- Novice: learning rules
- Advanced beginner: apprenticeship, context
- Competent: choices, reactions to success
- Proficient: salience, reinforcement
- Expert: intuition for what and how



# Implications of Dreyfus' Model

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- Emotions are a core part of reasoning, in particular expert reasoning
- Implicit versus explicit knowledge
- Users' explanations for behavior
  - Availability
  - Accuracy

Lucy A. Suchman

# PLANS AND SITUATED ACTIONS

The problem of

human machine

communication

LEARNING IN DOING: SOCIAL, COGNITIVE, AND COMPUTATIONAL PERSPECTIVES



Lucy Suchman

Human behaviour depends upon the situation and cannot be generalized

# Conducting an interview

# Conducting an Interview

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- Overview
- Notification and consent
- Simple questions to start
- Main interview
- Thank the participant

# Conducting an Interview

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- Overview
  - Explain what the research is about what the purpose of the interview is
  - That this is not an evaluation of the participant, you are here to learn from them
- Notification and consent
- Simple questions to start
- Main interview
- Thank the participant



# Conducting an Interview

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- Overview
- Notification and consent
  - State data you will be collecting (audio, video, notes). Show them recording equipment
  - Explain how data will be used and if it might appear publicly
  - Obtain clear consent from the participant written or verbal
- Simple questions to start
- Main interview
- Thank the participant

# Conducting an Interview

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- Overview
- Notification and consent
- Simple questions to start
  - Start with simple questions to put the participant at ease and gets them used to the interview format
  - “What is your name?”, “How long have you worked here”, “When did you first start using the X system?”
- Main interview
- Thank the participant

# Conducting an Interview

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- Overview
- Notification and consent
- Simple questions to start
- Main interview
  - Most of the time will be spent here
  - We will discuss further on following slides
- Thank the participant

# Conducting an Interview

---

- Overview
- Notification and consent
- Simple questions to start
- Main interview
- Thank the participant
  - Typically end with “do you have any questions or comments?”

# Interview structures



# Interview Structures

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- Unstructured: unscripted. Initial planned question and then follow-on questions
  - Rich data
  - No possible to replicate
- Structured: tightly scripted, similar to a questionnaire.
  - Comparable data between interviews
  - Very possible to replicate
- Semi-structured: script of topics/questions to be covered, but format is flexible
  - Somewhat comparable between interviews
  - Possible to replicate, but not exactly

# Unstructured Interviews

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- When to use it
  - Unstructured interviews are best when you have little to no understanding of the topic being discussed.
  - Useful when initially talking with a client about a project
- Pros
  - High flexibility, you follow up on anything you feel is relevant
  - The participant gets to do the most talking
- Cons
  - No planning means odds of missing important things are high
  - Challenging to identify what exactly to follow up on in real time
  - Resulting data is unstructured and qualitative. More challenging to analyze

# Industry Case Example

# Unstructured Interview Script

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Recruit: Age 18-25, trip within the last 2 months

Context: Trend where youth seek local experiences abroad

Goal: Generate ideas for a new travel app

Q1: Tell me about your most recent trip.

Q2: What were some of your favourite moments?

Follow-up on moments of delight around trip and any tech involved in coordination.

In LAB FOCI:

- Tools for Travel
- Delightful discoveries
- Pain points in planning logistics
- Local experiences at home
- Social aspects of local
- Bucket list management
- For everything: phone versus desktop
- What are daily or weekly habits in this space?

# Example Script from Polyvore Labs

Intro: 5min

What were your recent travel experiences?

How much were you looking to experience popular points of interest versus getting a “local experience”?

Tours of tools: 10min

How were you able to research and plan the local experience? Show me everything! Did you involve friends? How?

What do you do on your phone versus desktop?

Local Experiences: 5-10min.

Do you ever seek out “local experiences” where you live? How do you research them? Show me. How do you engage with friends about them?

What do you do on your phone versus desktop?



# Exploratory Research: “Local Experiences” Travel with Millennials

UX Research: Danielle Lottridge

## Example Findings

### EXECUTIVE SUMMARY OF FINDINGS

- Generative interviews with 5 millennials who recently traveled
- Planning travel is not a daily need
- Tripadvisor, Google maps, Google, Yelp are main tools. Instagram and Pinterest also used. P1 used Ticketmaster and Eventbrite to see find local theater when traveling.
- Participants create their own repositories of travel plans (docs, spreadsheets) so that they can create and share plans collaboratively with a travel partner, list their options
- We did not see a lot of digital traces of sharing information or plans socially. There is a lot of word of mouth advice from friends, and planning collaboratively in person.
- Participants choose a general destination ahead of time (e.g. city) and options for major attraction. Participants have a pain point in mapping out distance between attractions and where they might stay. Participants make some plans for transportation.
- P1 looked at a google map of travel destination, and see whether there seems to be a cluster of pins, and interpret this as a walkable neighborhood with good food options
- When arrived, participants need help in transportation logistics. They want to have local experience with food and use yelp to try and find good options locals love. In some places like downtown San Diego, that proved to be difficult.
- When traveling, participants like to wander on foot and discover neighborhoods (opportunity for map based interaction).
- P2 finds attractions on Tripadvisor and then looks up a hashtag on instagram so that she can see *photos of the attraction taken by other millennials* as she senses that

# Structured Interviews

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- When to use it
  - When you know your topic very well and can predict common opinions
  - When you want structured data
  - Many people will be interviewed, possibly by several interviewers
- Pros
  - Strong script that is well defined. Very clear what you will ask the participant
  - Easy to replicate between participants and interviewees
  - Resulting data is very structured and easy to analyze
- Cons
  - Inflexible. No way to follow up with a participant
  - Difficult to identify if you have the correct questions/answers
  - Can omit important information if unexpected

# Semi-structured Interviews

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- When to use it
  - When you know the topic well enough to predict key areas but not well enough to know what people are likely to say
- Pros
  - Loose script that covers key topics
  - Approximate replications possible
  - Resulting data is structured by topic
- Cons
  - More topic-constrained than unstructured, but still may miss key ideas because not in the script
  - Follow-up possible, but more time limited

# Interview Script Practice

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Imagine the goal: generate ideas for a travel app for experiences in domestic travel.

Chat with your neighbour to create 2 questions.

Revise these questions for an unstructured, structured and semi-structured interview.

Include artifacts, prototypes, context



# Usability Studies

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- Tend to be semi-structured
- Covered in COMPSCI345/SOFTENG350

# What usage testing can look like

- Specific tasks
  - Observed
  - Recorded
  - Measured
  - Think-aloud















# Usage testing conditions

- UX lab or other space
- Emphasis on:
  - selecting representative users;
  - developing representative tasks.
- 5-10 users typically selected
- Sessions usually around 30 minutes
- Conditions are the same for every participant
- Informed consent form explains procedures and deals with ethical issues

# Contextual Inquiry

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- “Mini-ethnography” (roots in Anthropology)
- Similar to an interview, but done in “context” where the participant interacts with technology
- Pros
  - Rich data similar to an unstructured interview, deep understanding of context
  - See the space, layers of technology
  - Opportunity to identify “obvious” things that users don’t mention
  - Realistic
- Cons
  - More involved, travel to location, 1-3 hour inquiry
  - Less structured data is harder to analyze
  - May require special permission to visit and record space



# Artifacts in Interviews

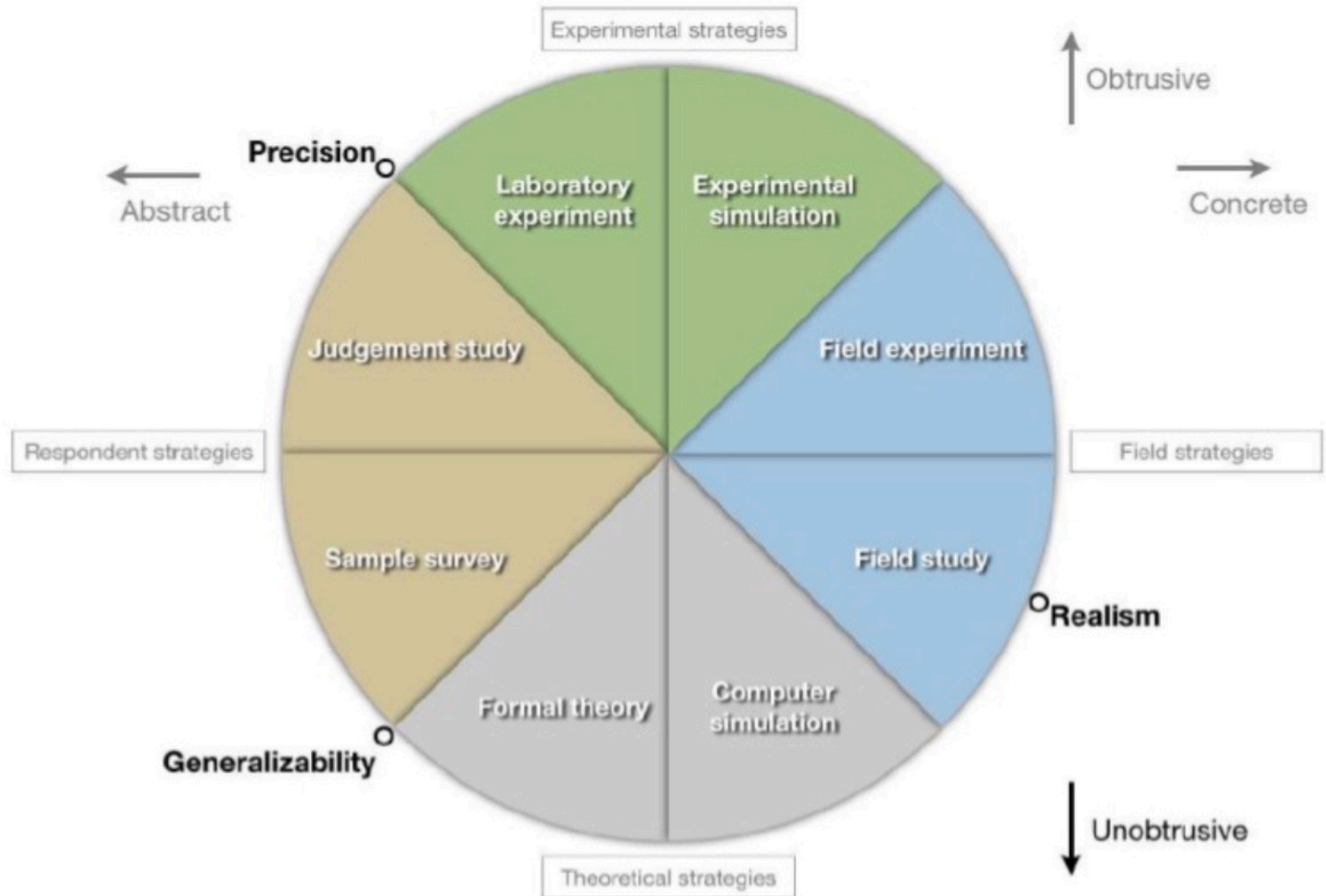
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- We can adapt Critical Incident Technique to design
  - Focuses on specifics of a particular incident rather than generalities
  - Can ask users to recount recent interactions with systems
- Artifacts can be used in interviews to understand uses, behaviours and motivations for an existing system
  - “Show and tell” or “give me a tour” along with a verbal explanation

Flanagan, J. C. (1954). The critical incident technique. *Psychological bulletin*, 51(4), 327.

# Context of research strategies

# The strategy circumplex



# Let's Rework these

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[After user has used "System X" for 5 minutes]

Was that easy to use?

What do you prefer, the new way to do X or system Y that you usually use?

Do you create better x's on System X compared to Y?

How would you change "System X" so that you would use it every day?

# What's next

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- Analysing qualitative data...