Human Computer Interaction

Taslima Akter

Design Processes & Methods – Part 3

Announcements
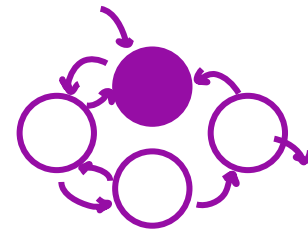
> A6 grades are posted.

> P2 is released!

P2 - Time & Project Management

⟩ Think about the project in terms of weeks, not work that needs to be done.

  ○ Within each week, determine who needs to do what to accomplish what has to be done by the end of the week

You have about 2.5 weeks to complete P2!

stakeholders
observations

Interviews
Contextual Inquiry

focus groups

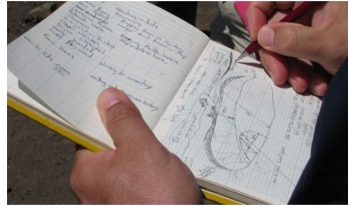diary studies

cultural probes

Last Class - Identify

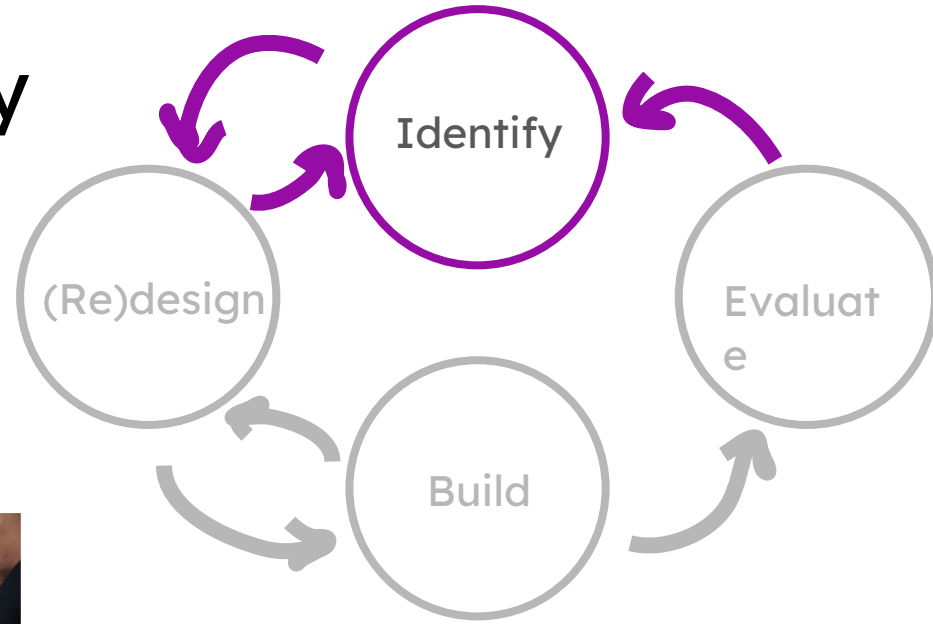identify your primary, secondary, tertiary stakeholders

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Interviews
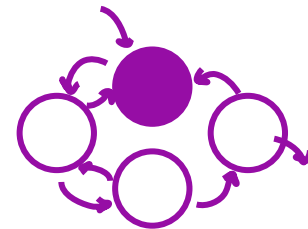
Field observations

get to know your primary stakeholders (i.e., target users)

Identify

(Re)design

Evaluate

Build

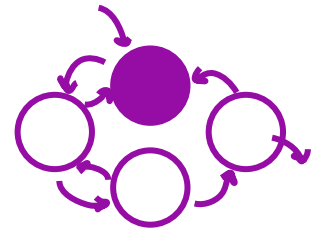stakeholders

observations

Interviews

Contextual Inquiry

Today

focus groups

diary studies

cultural probes

stakeholders

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interviews

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cultural probes

Interviews

> 1 or more interviewers, 1-2 interviewees

> In-person, or remote phone/video chat

> In-person? In situ, or "third space"

> Between 5-120 minutes

Types of Interviews & Questions

〉 Interviews can be:
- ○ <u>structured</u>: pre-planned questions, read verbatim, not read out of order
- ○ <u>semi-structured</u>: prepared questions, but the interviewer expects to deviate from them, asking follow-up questions and going out of order, so as to follow the interviewee's lead
- ○ <u>unstructured</u>: spontaneous questions; may have a topic chosen, but conversation is open and free-flowing

〉 Interview questions can be:
- ○ <u>open</u>: answers are more likely to be longer and diverse between users (e.g., "Tell me about your career path." or "What's your favorite part of your job?"
- ○ <u>closed</u>: possible answers are chosen from a given or implied discrete list (e.g., "what's your job title?" or "do you own a mobile device?")

Preparation

〉 Develop a protocol
  ○ materials (e.g., notebook, pencil, recording devices x 2)
  ○ reminders (e.g., turn on the recorders, gain consent)
  ○ questions, timing info

〉 Run a "pilot" or test interview(s)

〉 Recruit participants

〉 Negotiate location, communication tools

〉 Gain user consent (e.g., adult) / assent (e.g., child)?
  ○ privacy
  ○ safety
  ○ compensation

Your first question?

⟩ Which other social media sites do you usually use to share pictures? (closed)

⟩ What role has tech played on your life?

⟩ Why do you share photos on social media?

⟩ What kind of photos do you post or not post?

⟩ After you take a photo do you usually share w/ friends on Internet?

Middle questions?

〉 Is your account typically public or private?

〉 what's the worst experience you've had when you attempted to share an image on social media?

Last question?

〉 can you see our design?

  ○ would you change what you're currently using and use our app?

  ○ awkward??? like showing someone your mix tape…

〉 If you had to pick the best photo sharing feature on a current social media app, what would it be?

〉 scheduling

During

⟩ Two recorders, always :)

⟩ Take notes!

⟩ Be synthesizing, asking thoughtful follow-ups (semi-structured)

⟩ Be present (eye contact, backchannels like "mm")

⟩ Use the power of silence, editorial power

⟩ Consider having a co-interviewer

Afterwards

〉 Transcribe interviews
  ○ manual transcription
  ○ professional transcription

〉 Analyze results (often, "thematic analysis")

〉 Constant comparison between and across interviews

〉 Create personas, user stories, etc.

Interviewing tips

〉 Avoid leading questions

  ○ Bad: "*Why do you enjoy using the Acme product so much?*"

  ○ Better: "*Why do you use the Acme product?*"

〉 Avoid closed questions

  ○ Bad: "*So, you use the Acme product every morning?*"

  ○ Better: "*Can you tell me about how you use Acme?*"

https://www.nngroup.com/articles/user-interviews/

Interviewing tips

Practice follow-up or probing questions

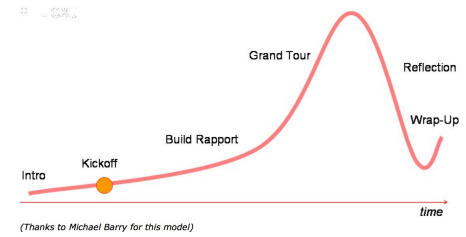| Can you tell me more about that?	I want to make sure I understand this. Can you explain more?
Wait for a response	*Wait for a response*

NNGROUP.COM **N N**/g

Interviews
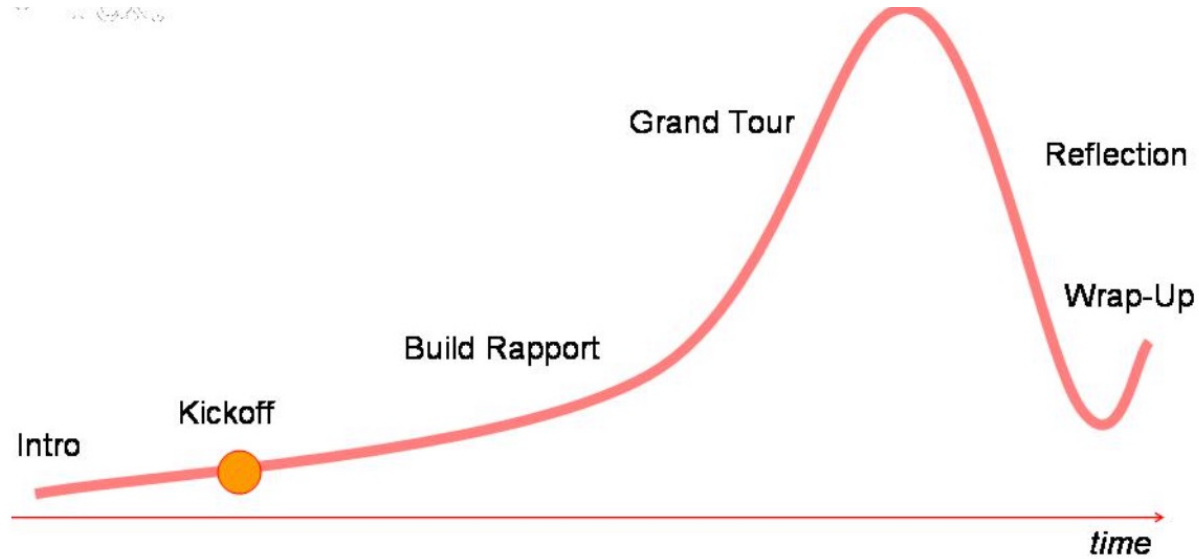
(Thanks to Michael Barry for this model)

Interviews

(Thanks to Michael Barry for this model)

Intro: "Hi, I'm a UTSA student studying coffee. I'm interested in hearing about your experience with coffee. There are no right or wrong answers, I just want to hear what you have to say."

Kick-off: "Do you drink coffee?"

Build rapport: "Did you have a coffee today? How was it? Do you have a favorite coffee?"

Grand Tour: "Can you describe your most memorable coffee experience? Why was it so unique? What happened?"

Reflection: "If you were designing the ultimate coffee shop based on your ideal experience…"

Pros/cons of interviews?

〉 detailed qualitative data

〉 elicitation allow for follow-up on interesting leads

〉 first-person accounts
  ○ gives some users a say, but may misrepresent the larger population
  ○ can be more OR less trustworthy, depending on the type of information

〉 take a lot of time, but relatively less than an ethnography

〉 requires a lot of time to analyze

A07: Draft an Interview Protocol

[Activity 07](#)
10 minutes

> Carefully design a list of interview questions for a semi-structured interview

> Submit questions to Canvas

stakeholders

observations

Interviews

Contextual Inquiry

focus groups

diary studies

cultural probes

CONTEXTUAL INQUIRY

〉 Can be thought of as applied design ethnography
〉 The core premise of contextual inquiry is very simple:
○ go where the customer works.
○ observe the customer as he or she works, and talk to the customer about the work.
○ gain a better understanding of your customer.
〉 Effectively, observation + interview

CONTEXTUAL INQUIRY

GOAL
〉 To study actual behavior in real contexts of use and see how context impacts interactions.

   ○ The goal is not to learn to do the task

   ○ Instead, the goal is to learn how the participant does the task in order to learn how to support it

WHEN
〉 Use when you are not worried about biases (that your behavior will change behavior somewhat) and you are interested in specific tasks

CONTEXTUAL INQUIRY

How

〉 Define your tasks up front (ask participants in advance about the types of things that they do and the places where they do them to help design your session).

- ○ Conduct the session in the place and time that the task is normally conducted.

- ○ Enlist the participant's active assistance in understanding the task, but minimize interruptions.

CONTEXTUAL INQUIRY

Four Principles for applying the method

> Context

> Partnership

> Interpretation

> Focus

CONTEXTUAL INQUIRY

Four Principles: Context

〉 Must be "where the work happens"
〉 Useful for understanding the underlying work structures rather than people's perceptions of those structures

CONTEXTUAL INQUIRY

Four Principles: Partnership

〉 Aim to follow a master/apprenticeship model

- ○ You're (researcher) the apprentice, watching and asking questions to understand why things are done a certain way

- ○ The transfer of knowledge happens when people talk about how they work while they're doing the work

CONTEXTUAL INQUIRY

Four Principles: Interpretation

⟩ All data must be interpreted for meaning before developing design implications

- ○ Merge insights from your observations with insights from your questions

- ○ Double-check your interpretations with your participants

CONTEXTUAL INQUIRY

Four Principles: Focus

〉 Be open to expanding on your initial focus or assumptions

- ○ Any time you're surprised by a participant or find their actions odd, it's an opportunity to ask questions

- ○ Aim to see their perspective rather than your own

Interviewing within Contextual Inquiry

〉 Within a contextual inquiry, interview questions should stay subtle

- Again, you're acting as an apprentice
- Follow your curiosity, but don't divert participant's workflow too much

〉 Interviewing can also be a standalone formative method

- Maybe you're investigating something hypothetical; participants have no established workflow
- Standalone interviews can be more intrusive; follow-up questions are expected
- But may require triangulating with other sources

Contextual inquiry

Gaining access & building rapport

〉 Before you can do anything in an ethnographic project, you must gain access to your site and informants

〉 Must additionally gain confidence and trust

〉 Recognize some potential reactions you could have

- Excitement about the project and site

- Culture shock

- Cycle of entering and leaving can have emotional impact

Contextual inquiry

Recording your observations

〉 Video recording
〉 Note taking and memos
〉 Interviewing
〉 Be mindful of your access permissions and participant's comfort levels

Contextual inquiry

What to record

⟩ Begin with your research questions

⟩ Do not overly constrain yourself

⟩ Take notes on

- What is directly relevant

- What strikes you as interesting

- Everything else

Contextual inquiry

The process of recording

⟩ Your data are only as good as you are

⟩ Sometimes it is possible to record in the moment

⟩ Other times it must be done after the event

　○ Write down the important things first

　○ Then replay the day and slot them into order

Contextual inquires and interviews

Strengths

⟩ Extremely rich data
   ○ You get to watch what people do and talk to them!
⟩ "Real world" and unfiltered, or as close as you can get
⟩ The methods are led by participant's needs and interests, not your preconceived notions

Contextual inquires and interviews

Weaknesses

〉 **Participants do not necessarily know what is important to you**

　○ Probing questions or observation can help, but they're not sufficient

〉 **People's memories are warped and flawed**

　○ They may say one thing in interviews and do another in practice

〉 **The methods are resource-intensive**

　○ You can hear from tens of people at best, making generalization challenging

〉 **Participants can find it awkward to be watched or open up**
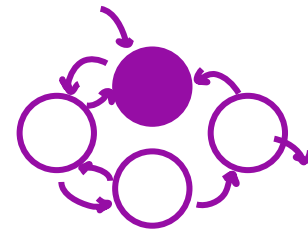
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Materials in this course were compiled from courses taught by: Matt Bietz, Stacy Branham, Tyler Fox, Elena Agapie, Nigini Oliveira, Katharina Reinecke, Andrew Davidson, Jennifer Turns, Daniel Epstein, Andrea Hartzler. Thank you to all.