



User Interfaces

EECS 346I – Sections A & B
Fall 2021

R-Design-VI
Personas

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Dependencies

This resource pack assumes that you are already familiar with:

- R-Humans-II (and all previous)
- R-Design-V (and all previous)
- R-Interaction-II (and all previous)

Key Questions

1. Purpose of the persona, scenario, and journey mapping representations?
2. What is the persona representation?
3. What is a persona hypothesis?
4. Steps in persona construction?

1. Purpose of the persona, scenario, and journey mapping representations?

Personas, Scenarios, Journey Maps

- personas, scenarios, and journey maps are UX design representations
- they are abstractions used in the design process
- each of personas, scenarios, and journey maps has their own form and process
- purposes:
 - representation (of research results)
 - communication (among team members, between team members and others)
 - empathy

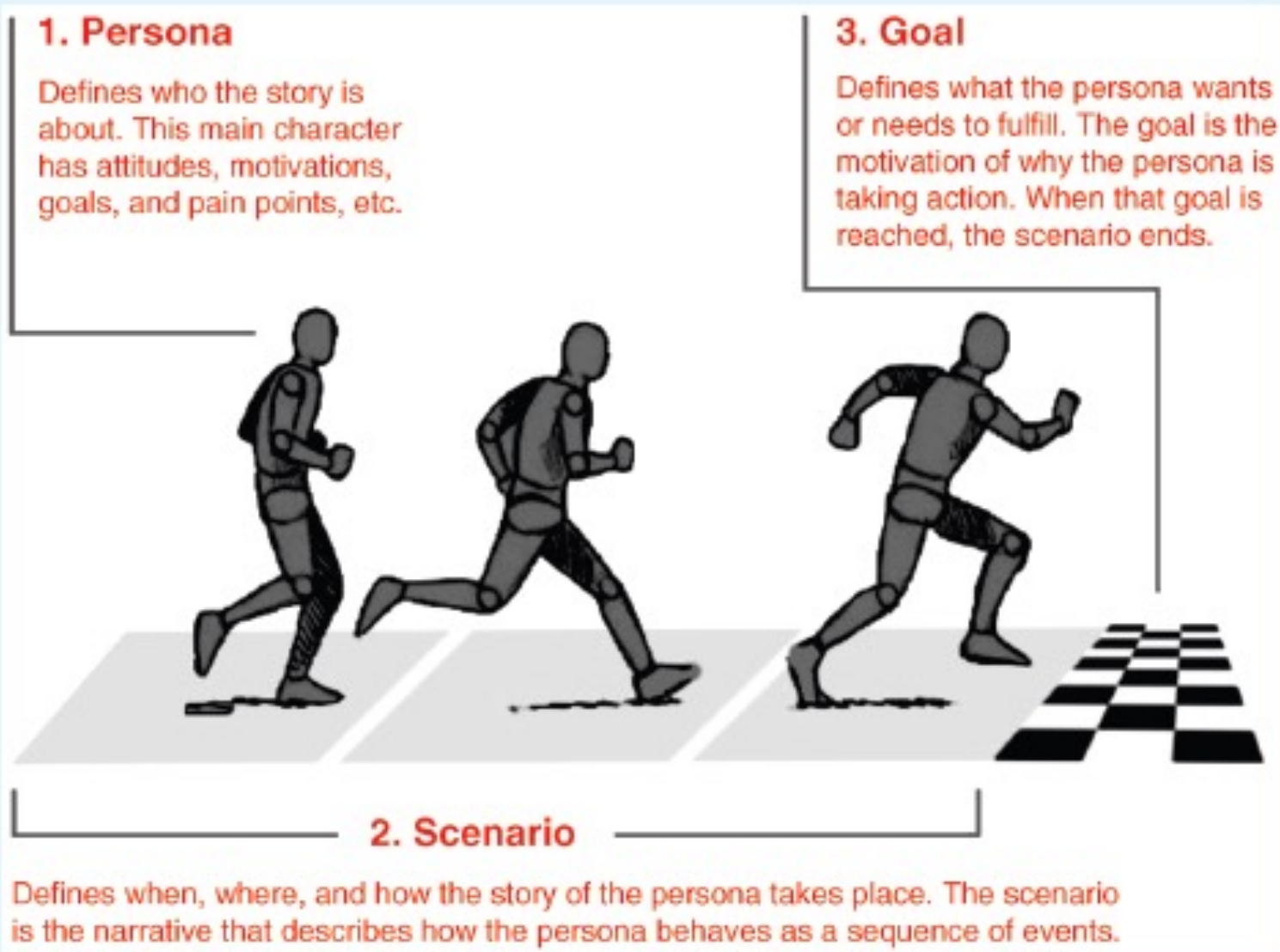


Figure 10.10 The relationship between a scenario and its associated persona

Source: <http://www.smashingmagazine.com/2014/08/06/a-closer-look-at-personas-part-1/>

2. What is the persona representation?

Relevant Concepts: Recap

Before discussing the construct of a persona, let's recap:

- we have already discussed the issue that user is a *discursive construct*
 - *user* as an object of scientific object of study
 - *user* as a constituency in need of empowerment

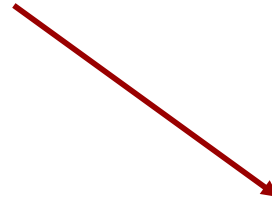
Personas are abstractions

- personas are abstractions
- these abstractions are used to represent users
- they are a “middle layer” type of abstraction
 - mediates between low-level data and high-level “the user”
 - low-level: specific data about specific humans
 - “the user” is the most general abstraction
 - middle layer -> a smallish number of ‘types’ of users
- personas are mostly accepted as a design technique, but there is debate and criticism of the technique

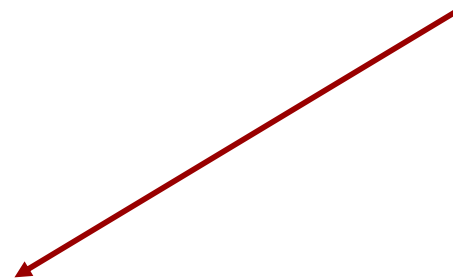
Levels of Abstraction



the specific coins that are in my pocket



these coins are the different type of coins that are in circulation in Canada

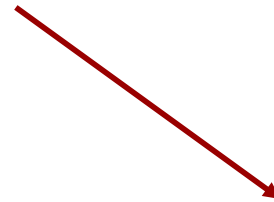


the coin as a type of currency

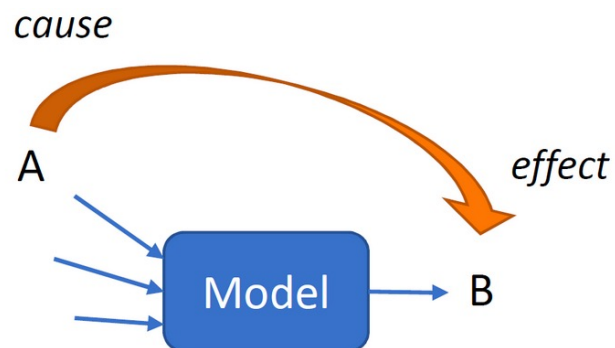
Levels of Abstraction



the users that are “within reach”
(constitute a certain market, live in a
certain place, etc)



these persona are the archetypes of the users that
relevant to the design domain



the persona as a type of user model

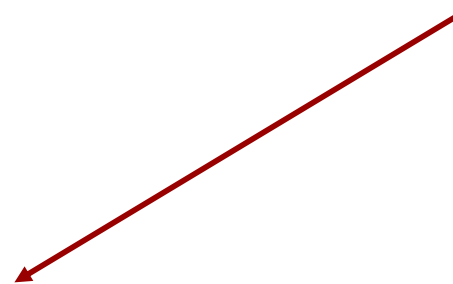




Figure 3-1: If you try to design an automobile that pleases every possible driver, you end up with a car with every possible feature that pleases nobody. Software today is too often designed to please too many users, resulting in low user satisfaction. Figure 3-2 provides an alternative approach.

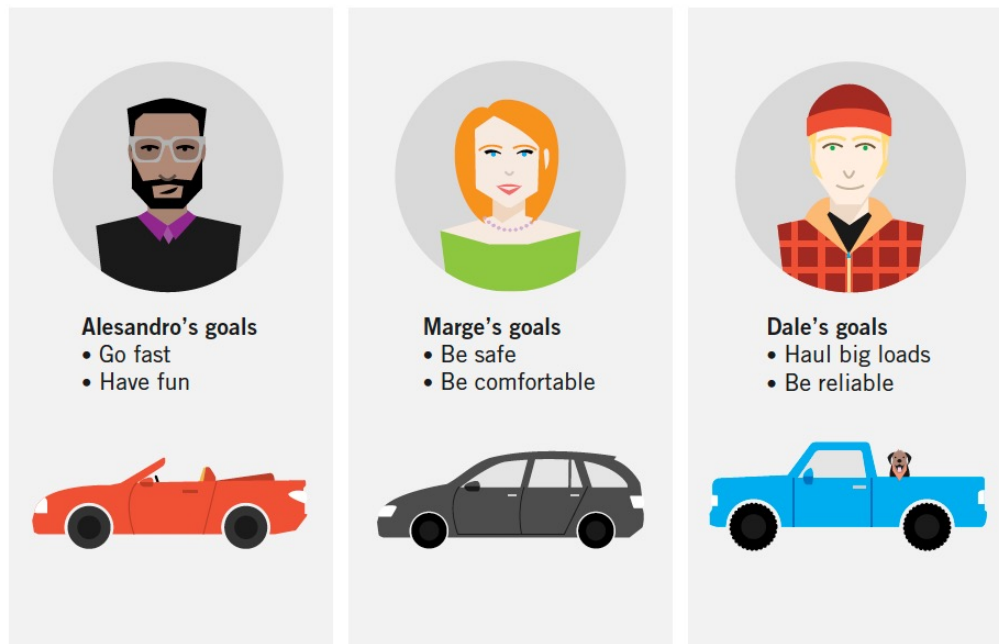


Figure 3-2: By designing different cars for different people with different specific goals, we can create designs that other people with needs similar to our target drivers also find satisfying. The same holds true for the design of digital products and software.

p 63, Cooper et al (2014) illustration of diversity of goals

and argues for the need to model goals


...good thing the figure doesn't reinforce stereotypes (ugh)

What is a Persona?

- a persona is text-and-graphics-based representation of an archetypical user
- it is a fictional, yet realistic, description of a typical or target user
- personas are developed from data; they are based in evidence
- the evidence can be derived from various data collection methods (e.g., interviews, surveys, demographic data)
- personas are developed via a process of pattern detection from the data set

Example Persona

Family traveler



Organised

Practical

Expects high standard

Goals

- To book comprehensive travel quickly
- To find a trip that meets the needs of the whole family
- To feel supported and guided from the beginning of the booking experience right to the end.

Frustrations

- Wasting time filling in forms
- Too much irrelevant information
- Existing systems tend to be too diverse and complicated

Bio

Will loves to take his family on adventure holidays to explore new challenges. His children, Sky (8) and Eamonn (15) are old enough to take part in several sporting activities and he wants to make the most of this before they no longer want to go on trips with him and his wife, Claire. He likes the fact that choosing travel options is so much easier than it used to be, but is frustrated by the many different sources and disjointed options that this can result in. He wants a travel organiser that can provide clear support for family holidays while offering as wide a choice as possible.

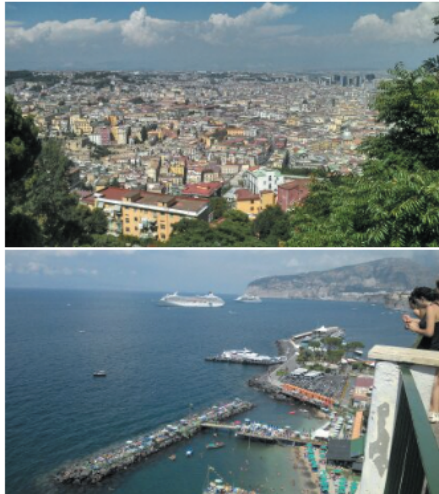
Motivation

Price

Comfort

Choice

Favourite destinations



"I want a travel organiser that will offer me a range of potential vacations that suit our needs"

Age: 35
Work: Plumber
Family: Married, two children

Personality

Introvert Extrovert

Thinking Feeling

Sensing Intuition

Example Persona



Company "Investigator"

Rosa Cho
Content Strategist, Freelance

Age: 34
Location: Seattle, WA

"I'm looking to join the right company that challenges me and allows me to grow and develop my skills."

About Rosa

Rosa does not believe in settling. She won't settle for a job with a company that isn't as innovative and cutting edge as she believes she deserves. She wants to get the most out of every professional experience, and before moving to a new position, Rosa investigates every angle of aligning herself with a company.

Behavioral Considerations

- + Expects the site experience to reflect the business's culture and values
- + Interested in career opportunities within the organization that fit her career goals
- + Thoroughly compares multiple companies with similar opportunities
- + Is interested in the unique benefits of working at a company, including cultural elements, mentoring programs, and continuing education policies
- + Needs to be confident the company has innovative products that will be interesting to work on
- + Needs to know company has reputable partners and customers

"I crave variety in the types of industries and goals of each content project I work on. I need to ensure I won't get bored."

Frustrations

- + Thinks that too many companies have career sections that just talk about open positions but not why she would actually want to work there
- + Would like to challenge herself and have a more stable job, but is comfortable as a freelancer and wouldn't stop for just any job

Goals

- + Needs to see reasons why a company is interesting: has it won awards, had intense growth, won big contracts?
- + Wants to figure out how to get in touch with someone at the company to explore opportunities further

Tasks

- + Learn about current customers and success stories
- + Read press releases about recent big contract wins and other accolades
- + Read about culture, benefits and perks, and the people that work there
- + View job openings and apply

Typical Persona Elements

- Name, age, and a photo (gender complications)
- Tag line
- Characterization of experience level in the domain relevant to the design domain
- Characterization of context for their interaction in the design domain (e.g., choice or required? frequency and pattern, typical platform and posture)
- Goals and concerns when they perform tasks relevant to the design domain (e.g., speed, accuracy, thoroughness, safety, comfort, other needs that may factor into their usage)
- Quotes to sum up the persona's attitude

Why do we use personas?

- to tackle complexity in the design process:
 - to represent constituencies in the design process
 - to better engage the empathy of designers
 - to communicate user needs to product team members
- to tackle complexity in post hoc evaluation
 - to focus the scope of evaluation

Why are personas represented using this format?

the fictional name, the composite demographic information, and the narrative storytelling are used to:

- better engage the empathy of designers
- to communicate user needs to product team members

Persona Types

A design process will usually make use of a small set of personas.

- **Primary persona:** the main target of the design; will be satisfied by the interface design
- **Secondary persona:** a secondary target of design with specific additional needs; will be mostly satisfied with the primary persona's interface and the specific additional needs that can be accommodated without upsetting the product's ability to serve the primary persona. Only sometimes employed
- **Supplemental personas:** represent stakeholders; needs are captured by primary or secondary personas
- **Negative/anti-personas:** an explicit articulation of who the design is not meant for

What is an Anti-Persona

- An anti-persona is also a *user model* just like a persona, but represents who the design **is not being built to serve**
- Their use is purely rhetorical: to help communicate to other members of the team that a persona should definitely not be a design target.
- “Good candidates for negative personas are often technology-savvy early-adopter personas for consumer products, criminals, less-harmful pranksters and “trolls,” and IT specialists for business-user enterprise products.” (Cooper et al, 2014)

Brief History of the Persona Design Representation

- the concept of personas was first introduced in 1995, following the efforts of Alan Cooper and Wayne Greenwood, in response to the need for a tool to communicate design decisions to clients and to convey the user needs (Goodwin, 2009)
- Prior to this, starting in 1983, Cooper used a similar method known as proto-persona (e.g., an explanation of why he, as a user, would perform a certain task, what he would know in the beginning of the task, and what he would find out as he goes on) (Goodwin, 2009; Pruitt & Adlin, 2006).
- In the meantime, much analysis of the role, function, and impacts of the persona representation
- The concept of the individual persona has been elaborated to the concept of a group persona (e.g, Matthews et al, 2011)

How **not** to create personas

This is a way to create “something” that will look like a persona:

1. come up with a fictional name and a stock photo
2. write down the persona characteristics based on the designer’s own personal imaginings or envisioned version of the user and/or anecdotes
3. add in some demographic or market segment data
4. add in a narrative constructed by the designer that is not based on any specific data

You can create something that will look like a persona, but the resulting output is not likely to be useful

How do we construct personas?

- there is much discussion and debate about best practices for persona construction
- in this resource pack, we'll draw on:
 - Chapter 11, Sharp et al (2019)
 - Chapter 3, Cooper et al (2014)
 - *but even these two sources differ*
- We'll adopt a two-step process:
 1. persona hypothesis formulation
 2. persona construction

Best Practices

1. develop persona hypothesis and formulate interview plan
2. persona construction
 1. conduct interviews (qualitative research)
 2. organize and analyze qualitative data, identify significant variables (dimensions)
 - the variables (dimensions) combine to create a 'map' or 'space of possibilities'
 3. identify emergent clusters in the map; for each cluster, synthesize characteristics and identify goals; verify and validate
 4. designate and develop personas (for the clusters)

Formulating an interview plan

- interviews will be conducted to verify or refute the persona hypothesis
- each kind of user postulated in the persona hypothesis phase will require a certain number of interviews
 - according to Cooper et al (2014)
 - for “enterprise or professional products”, 4-6 interviews will suffice
 - for “consumer products”, “a good rule of thumb is to double the numbers just discussed: 8 to 12 interviews for each user type postulated in the persona hypothesis”
 - the interview participants should be relevant informants, meaning they should be representative of the user type that is being investigated
- the interview plan consists of:
 - identifying the number of interviews to be conducted per each kind of user postulated in the persona hypothesis
 - obtaining access to the interview participants
 - can plan to conduct early, middle, or late interviews

3. What is a persona hypothesis?

Persona Hypothesis

Cooper et al (pp. 46-47, 2014)

- the persona hypothesis is “a first try at defining the different **kinds** of users (and sometimes customers) for a product”
- the persona hypothesis helps to shape the subsequent data collection phase
- the data collection phase (typically interviews) which will generate data, which when analyzed, can provide evidence for (or refute) the initial hypothesis

Persona Hypothesis

- The persona hypothesis attempts to address, at a high level, these three questions:
 - What different sorts of people might use this product?
 - How might their needs and behaviors vary?
 - What range of cultural/environmental factors relating to organizational/community context need to be explored?
- the process may start (as a default) with the idea that there is a **single kind** of user
- via exploration of the three questions above, the hypothesis may expand to include **several kinds** of users

Hypothesis Formulation, Component #1

How to address the question “What different sorts of people might use this product?”

- a common way to identify ‘sorts’ of people is via social roles
- in business or organizational contexts, roles can map onto job descriptions
- in other contexts, roles can be based on:
 - attitudes and aptitudes
 - lifestyle choices
 - stage of life
- **action:** articulate the *roles* that are hypothesized as a further elaboration of the initial characterization of the target users from the design brief

Hypothesis Formulation, Component #2

How to address the question “How might user needs and behaviors vary?”

- can be tricky to identify variables in advance of data collection, since the target behaviours will depend on the design domain
- demographic factors may possibly be relevant: age, location, gender, and socioeconomic status
- factors relating to expertise may possibly be relevant:
 - degree of digital literacy,
 - degree of domain knowledge,
 - prior relevant experience
- **action:** articulate the *factors relating to needs and behaviours* that are hypothesized as a further elaboration of the initial characterization of the target users from the design brief

Hypothesis Formulation, Component #3

How to address the question “What range of cultural/environmental factors need to be explored?”

- environmental and/or cultural factors relating to the organization/community context can have an impact on user needs and behaviours
- can be tricky to identify variables in advance of data collection; factors relating to cultural/environmental context may possibly be relevant:
 - size of organization/community;
 - geographic locale of organization/community;
 - type of organization/community;
 - prior tech penetration into the organization/community;
 - security and privacy concerns and issues within the organization/community
- **action:** articulate the *factors relating to culture/environment of the organization/community* that are hypothesized as a further elaboration of the the design brief

Outcomes of Persona Hypothesis Formulation

- at the end of the persona hypothesis formulation, one or more kinds of users will get postulated

4. Steps in persona construction?

Best Practices

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Types of Interviews

- early interviews:
 - broad, open-ended questions about the design domain from the user's point of view;
 - designed to identify the design domain's basic rules, structures, and vocabularies
- middle interviews:
 - open-ended and clarifying questions, designed to flesh out information on emerging patterns of use; questions are more focused on specifics building upon the basic information from early interviews
- late interviews:
 - confirmation-style and closed-ended questions, further clarification questions about user roles and behaviors, refinement to assumptions about user tasks, processes, and needs

Conducting Interviews

can use a two- or three-person set-up

- two person set-up: an interviewer and a interviewee
- three person set-up (Cooper et al, 2014): two designers per interview, one who is a moderator and the other is the facilitator
 - the moderator drives the interview and takes light notes
 - the facilitator takes detailed notes and looks for any holes in the questioning
- adopt a position of humility:
 - don't position yourself as an expert, adopt a nonjudgmental stance; don't be afraid to ask naïve questions, be a sympathetic and receptive listener

General categories of interview questions

- goal-oriented questions:
 - about goals and objectives
 - about opportunities (good use of time, waste of time)
 - about priorities (most important, not important)
 - about information and decision-making
- flow-oriented:
 - process (what do you do and when)
 - occurrence and recurrence (how often, routine vs not routine)
 - what is usual vs an exception
- attitude-oriented:
 - aspiration (near term, long term)
 - avoidance (prefer not to do, procrastinate/last to do)
 - motivation (most enjoyable, first to do)

Interview questions

- **open-ended** questions typically questions begin with “why,” “how,” “what”, “describe...”
- **closed-ended** questions ask the the interviewee to chose from among an explicit or implicit set of alternatives
- **leading questions** are based on presuppositions and will result in biased answers
 - examples of leading questions from Cooper et al (2014):
 - Would feature X help you?
 - You like X, don't you?
 - Do you think you'd use feature X if it were available?
 - Does X seem like a good idea to you?

Interviews

- a “conversation with a purpose” (Kahn and Cannell, 1957).
- Four main types of interviews (Fontana and Frey, 2005):
 - open-ended or unstructured
 - structured,
 - semi-structured, and
 - group interviews (focus groups)

Interviews

- open-ended or unstructured
 - interviewer has an agenda (a general plan of topics to be covered), but is flexible
 - interviewer has the questions planned out in advance, but can modify and/or revise on the fly
 - e.g., ask for follow-up (probing), pursue new angles, etc
 - interviewer questions are open, can be answered as fully or briefly as desired
 - interviews will not be consistent across participants

Interviews

- structured
 - interviewer has an agenda (a plan of topics to be covered in a particular sequence) and is **not** flexible
 - interviewer has the questions planned out in advance, does not modify and/or revise on the fly
 - interviewer questions are short and clearly worded, typically closed
 - interviews will be consistent across participants

Interviews

- semi-structured
 - interviewer has an agenda (a plan of topics to be covered in a particular sequence) and is **somewhat** flexible
 - interviewer has the questions planned out in advance, only modifies and probes until there is no new relevant information forthcoming from the interviewee
 - interviewer questions are closed
 - interviews will be mostly consistent across participants

Interviews

- group interviews (focus groups)
 - instead of conducting several interviews, bring all participants together into a common conversation
 - facilitator (interviewer) has an agenda (a general plan of topics to be covered), but is flexible
 - facilitator has the questions planned out in advance, but can modify and/or revise on the fly
 - e.g., ask for follow-up (probing), pursue new angles, etc
 - guides discussion
 - manages the group dynamic (encourages quiet people to participate, intervenes when someone starts to dominate)
- conversational format has cultural dependencies

Analysis of Qualitative Data

- interview methods will produce large amounts of qualitative data
- typically, thematic coding methods are used
 - recall Mod01: Dark Pattern Analysis Activity, which used thematic coding

excerpt of a sample of a transcription of interview data

in this example, this is an interview to gather feedback from a prototype (as opposed to persona development)

- the transcript needs to include what the interviewer is asking (show in italics in the example, below labelled 'observer')
- the transcript can include disfluencies (um, like), pauses are shown as ...

I'm thinking that it's just a lot of information to absorb from the screen. I just I don't concentrate very well when I'm looking at the screen. I have a very clear idea of what I've read so far . . . but it's because of the headings I know OK this is another kind of evaluation now and before it was about evaluation which wasn't anyone can test and here it's about experts so it's like it's nice that I'm clicking every now and then coz it just sort of organises the thoughts. But it would still be nice to see it on a piece of paper because it's a lot of text to read.

Am I supposed to, just one question, am supposed to say something about what I'm reading and what I think about it the conditions as well or how I feel reading it from the screen, what is the best thing really?

Observer – What you think about the information that you are reading on the screen . . . you don't need to give me comments . . . if you think this bit fits together.

There's so much reference to all those previously said like I'm like I've already forgotten the name of the other evaluation so it said unlike the other evaluation this one like, there really is not much contrast with the other it just says what it is may be . . . so I think I think of . . .

Maybe it would be nice to have other evaluations listed to see other evaluations you know here, to have the names of other evaluations other evaluations just to, because now when I click previous I have to click it several times so it would be nice to have this navigation, extra links.