

Week 4-3 Understanding Users

SFWRENG 4HC3/6HC3 Human Computer Interfaces

** Slides adapted from previous instructors of COMPSCI/SFWRENG 4HC3/6HC3*

Quick Review

You want to design a new app that help improve the wayfinding experience for first year students on campus. You want to understand **current needs and challenges** associated with wayfinding for the first years, and you want to be able to **address the needs for most first years**. Which method is more appropriate for eliciting requirements?

Please download and install the Slido app on all computers you use



Which method is more appropriate for eliciting requirements?

- ① Start presenting to display the poll results on this slide.

Elicitation Methods Overview

Look

- Observe directly
- Observe indirectly
(look for usage pattern)

Ask

- Ask directly
- Ask indirectly
(get people to do stuff)

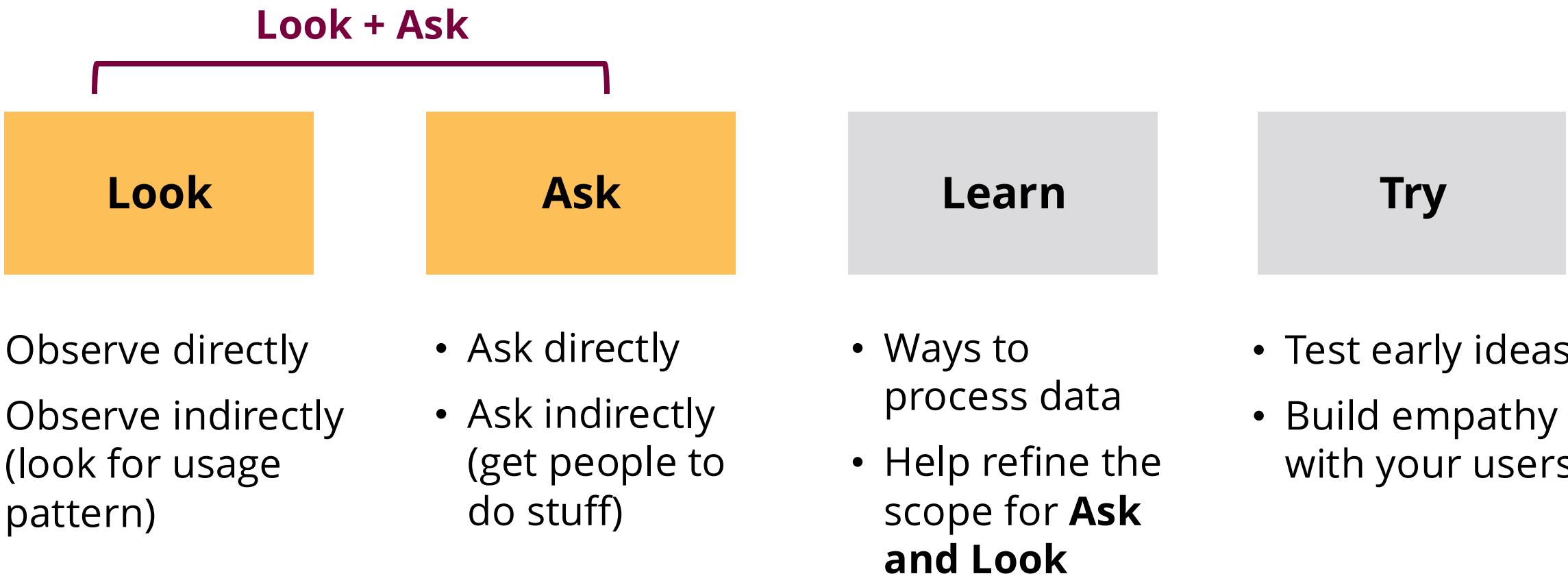
Learn

- Ways to process data
- Help refine the scope for **Ask and Look**

Try

- Test early ideas
- Build empathy with your users

Elicitation Methods Overview

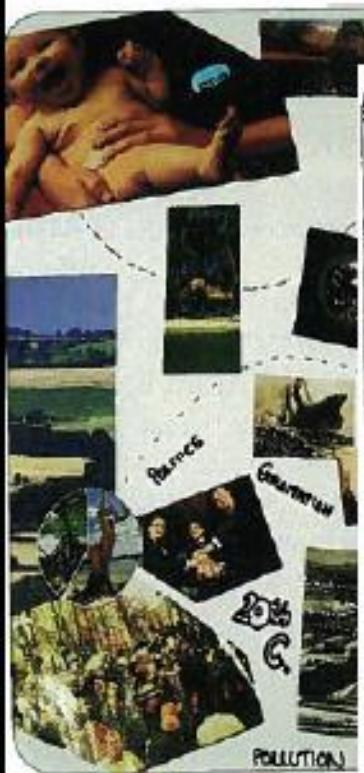


Week 4 Goals Overview

- Monday
 - Understanding Users: Look
- Wednesday
 - Understanding Users: Ask
- Friday
 - Understanding Users: Ask
 - Design Principles and Assignment 1

Understanding Users: Ask

There are various methods you can use to **ask users for help**



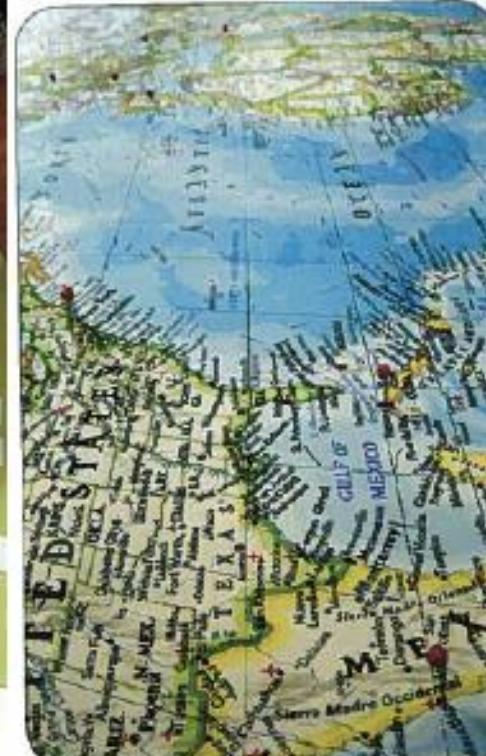
COLLAGE



CONCEPTUAL LANDSCAPE



CARD SORT



Ask them indirectly: **get them to do stuff, construct a mental model**

Mental Model

- A mental model is the **user's thought process or understanding of how something works**
- **Doesn't necessarily reflect the internal system**, e.g., the fact that a furnace may change blower speeds, has a cool-down or minimum cycle time, etc.



Ask: Card Sort

Card Sort

HOW: On separate cards, name possible features, functions, or design attributes. Ask people to organize the cards spatially, in ways that make sense to them.

WHY: This helps to expose people's mental models of a device or system. Their organization reveals expectations and priorities about the intended functions.

In a project to design a new digital phone service, a card-sorting exercise enabled potential users to influence the final menu structure and naming.



Ask: Example #1

Understand users'
priority when seeking
information in the
system:

- Ask ICU doctors what
are the most
important
information to them
in plan of the day



Ask: Draw the Experience

Draw the Experience

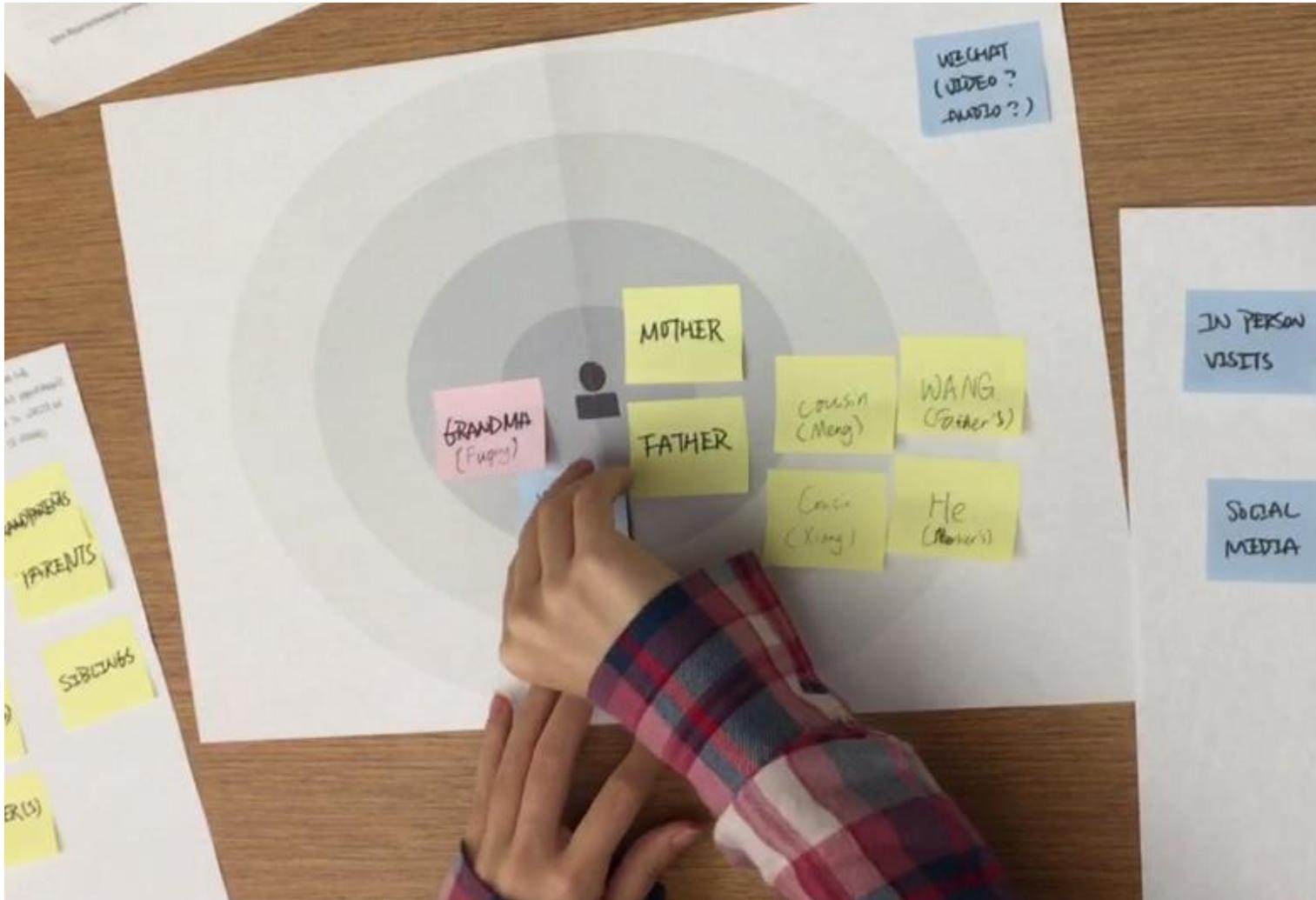
HOW: Ask participants to visualize an experience through drawings and diagrams.

WHY: This can be a good way to debunk assumptions and reveal how people conceive of and order their experiences or activities.

By asking people to "draw your money," the IDEO team designing an online bank was able to discern people's attitudes towards their finances.



Ask: Example #2



Ask participants to draw the map for their **closeness** with family members and **communication frequencies**

Ask: Narration

Narration

HOW: As they perform a process or execute a specific task, ask participants to describe aloud what they are thinking.

WHY: This is a useful way to reach users' motivations, concerns, perceptions, and reasoning.

In order to understand how food is incorporated into people's daily routines, the IDEO team asked people to describe what they were thinking while eating.



Look & Ask Summary

Method	Approaches	Benefits	Drawbacks
Look	<ul style="list-style-type: none">• Get into people's spaces and watch them• Investigate how people use their spaces and artifacts	<ul style="list-style-type: none">• Able to see organic interactions• Less filtered by person's memory / biases• Able to see in-context	<ul style="list-style-type: none">• Reasons can be unclear• Difficult to tell how person is feeling, what they are thinking
Ask	<ul style="list-style-type: none">• Ask them directly• Ask them indirectly• Get them to do things	<ul style="list-style-type: none">• Get direct insight into person's thoughts• Can tell how a person is feeling• Can get descriptions that would be unclear otherwise	<ul style="list-style-type: none">• People lie• People have bad memory• Out of context / filtered

Practices vs. Processes

Work Processes

- Formal articulation of how to get something done

Expect people to tell you about processes **when “asking”**

Work Practices

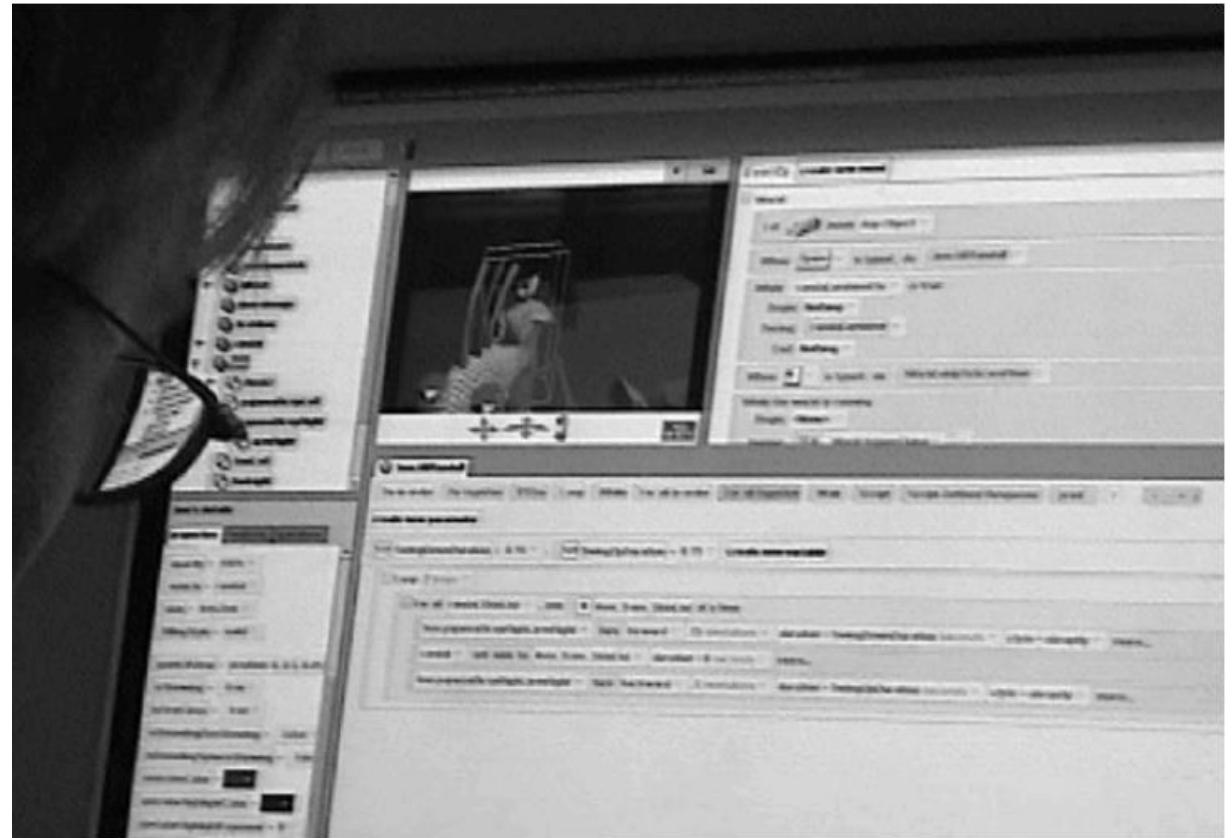
- Informal ways in which people get something done in the context

Expect to get practices by **“looking” or probing deeper when “asking”**

Look & Ask: Contextual Inquiry

Sometimes it is enough to simply **observe** the mechanics of the task

Other times you also need to **know what the user is thinking**



Look & Ask: Contextual Inquiry

During the observation:

- If **anything is unclear**, ask why participants are doing something
- If **they seem to be doubting how to do something**, ask them what options they are considering

Ask about the importance of subtasks

- Is order important?
- Is the manner in which they are conducted important?

In-Class Exercise 3: Review Questions

Week 4 Goals Overview

- Monday
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 - Understanding Users: Ask
 - Design Principles Practice and Review

Good / Bad Designs



Tickets Vending
Machine

Good / Bad Designs



- What **design principles** are reflected in the example?
- What are some **usability/UX goals** they are aiming for with the design?
- Is this a good design or bad design?

Good / Bad Designs

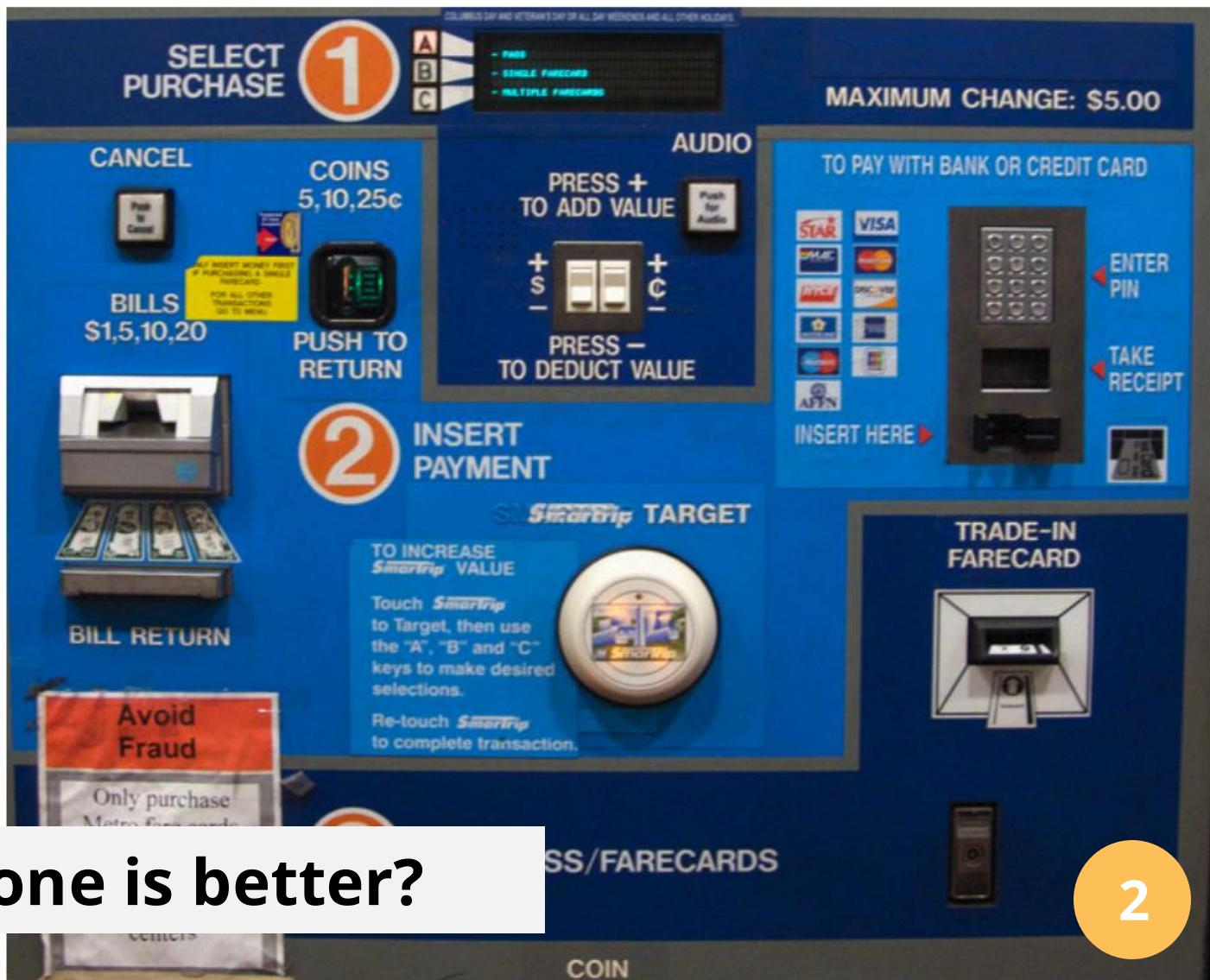
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Good / Bad Designs



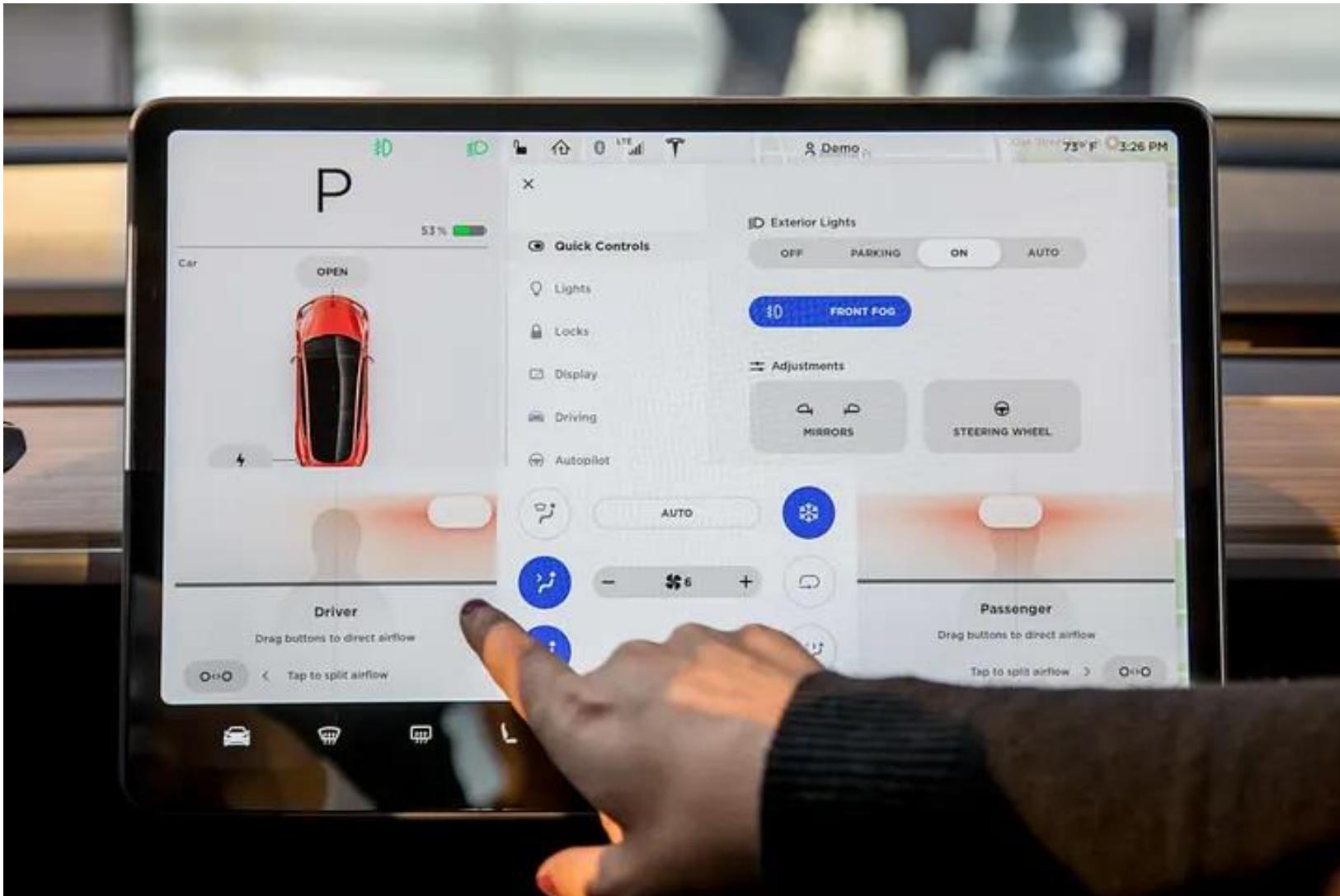
Which one is better?



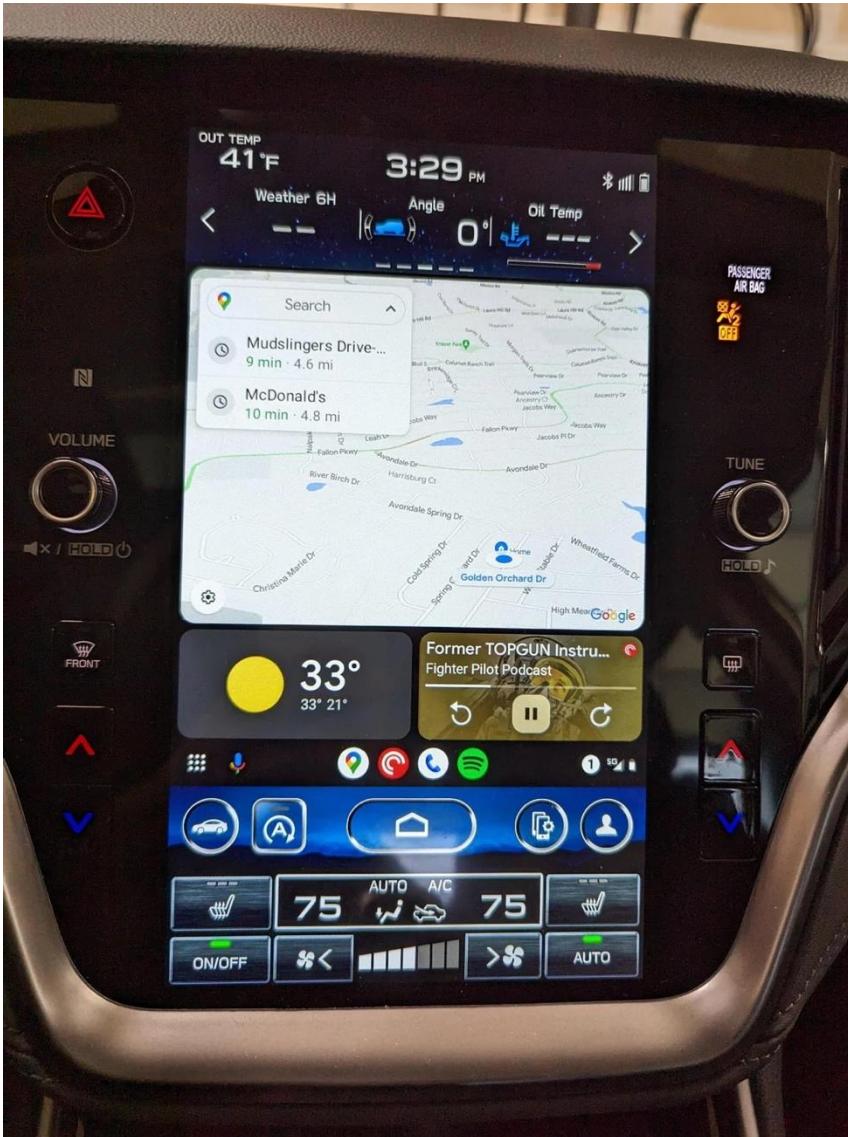
Instructions

- What **design principles** are reflected in the example?
- What are some **usability/UX goals** they are aiming for with the design?
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Example 1: Automobile UI

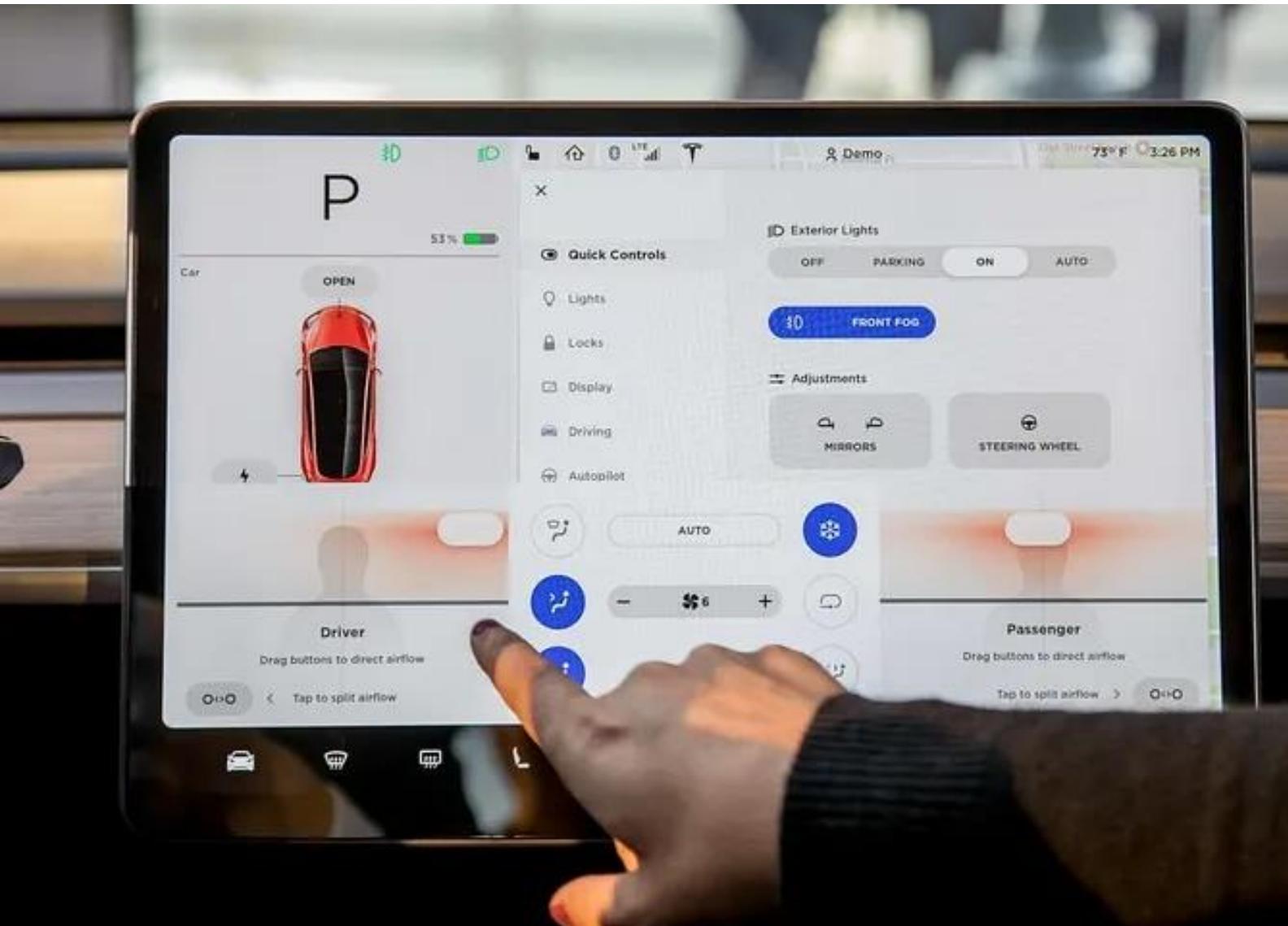


Example 1: Automobile UI



2

Example 1: Automobile UI



Example 2: Survey Creator

You're on a **free account**.

XM Test Project

Survey Distributions Data & Analysis Results Reports

Edit question Tools Saved at 12:29 PM Draft Preview Publish

Question type: Multiple choice

Answer type: Allow one answer

Choices: Number of choices: 3

Format: List, Vertical

Response requirements: Add requirements

Test Project ExpertReview score: Great

Default Question Block: Q1

Click to write the question text

Click to write Choice 1
Click to write Choice 2
Click to write Choice 3

Import from library Add new question

Add Block

End of Survey

We thank you for your time spent taking this survey.

Your response has been recorded.

Trash 0 Questions Empty trash

Start Free Trial

1

Example 2: Survey Creator

The screenshot shows a survey creation interface with the following elements:

- Header:** My workspace > My new form, Content, Workflow, Connect, Share, View plans, IY.
- Mode:** Universal mode.
- Toolbar:** Add content, Design, various icons for selection, insertion, and settings.
- Question Area:** A large text input field containing the placeholder "1 → Your question here. Recall information with @". Below it is a "Description (optional)" field.
- Answer Options:** A "Multiple Choice" dropdown set to "Multiple Choice".
 - Required:** Off.
 - Multiple selection:** Off.
 - Randomize:** Off.
 - "Other" option:** Off.
 - Vertical alignment:** On.
- Image or video:** An "Add" button.
- Endings:** A section labeled "A" with a plus sign to add more endings.

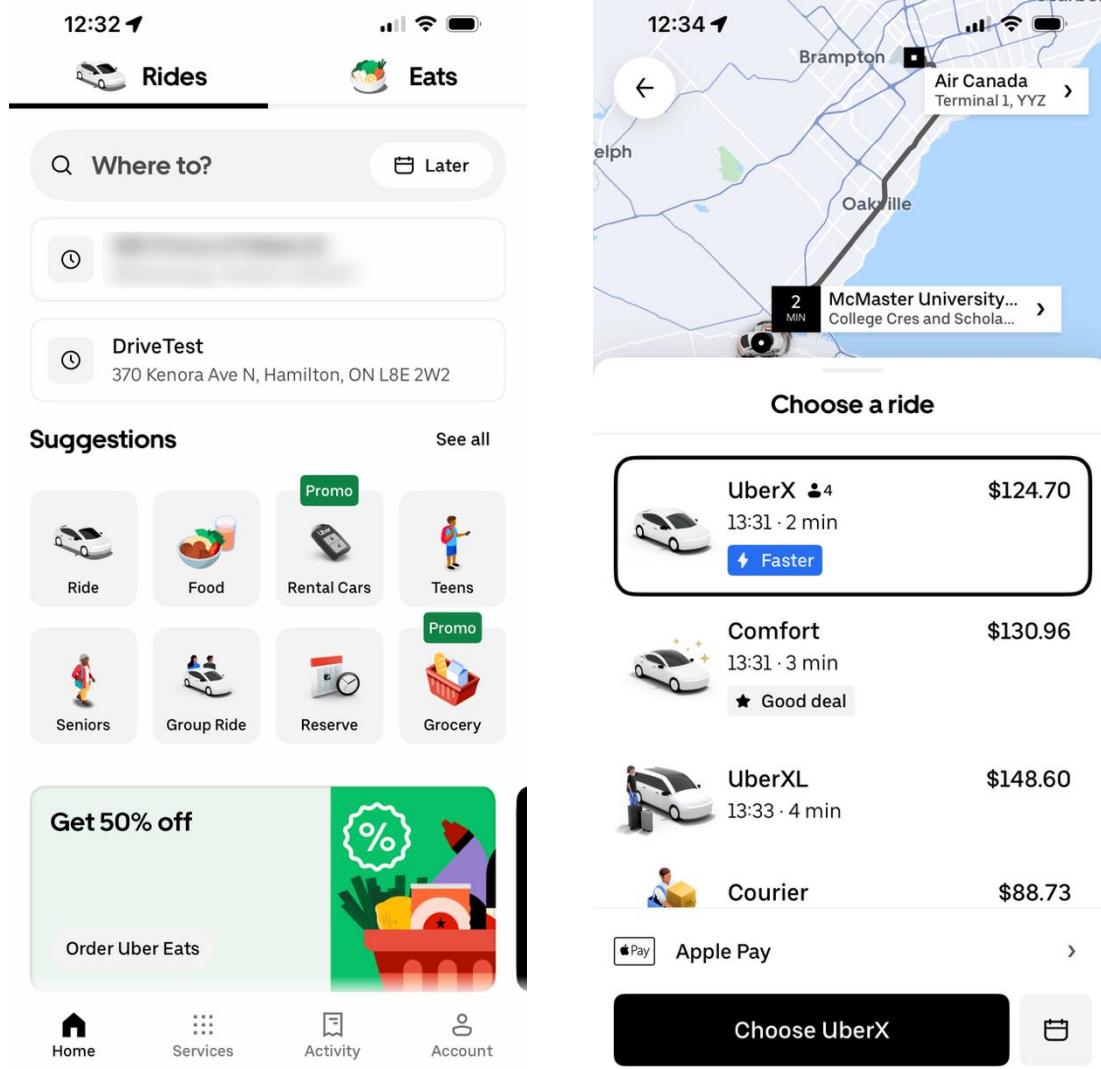
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Example 2: Survey Creator

The screenshot shows a survey creation interface with the following details:

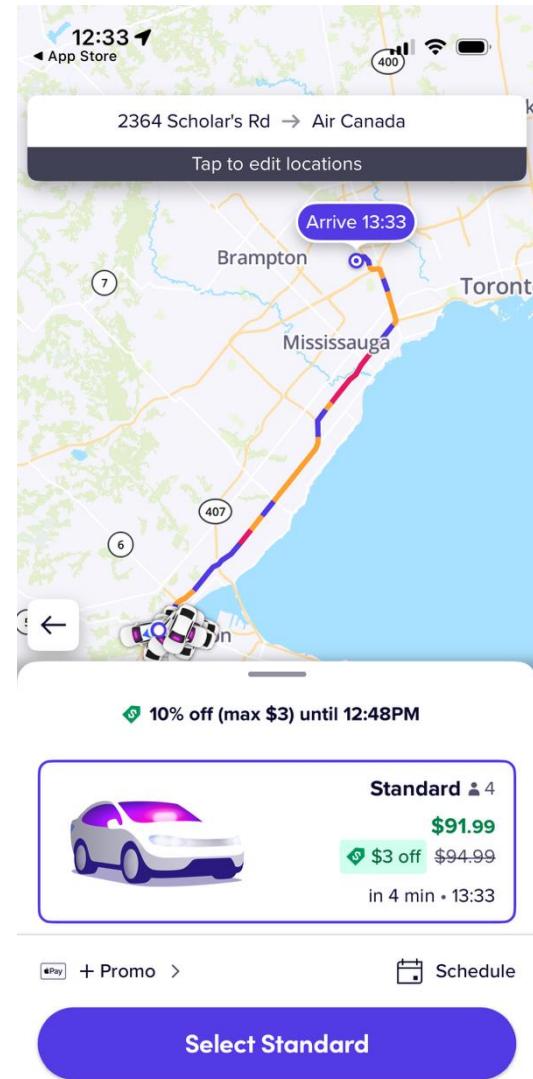
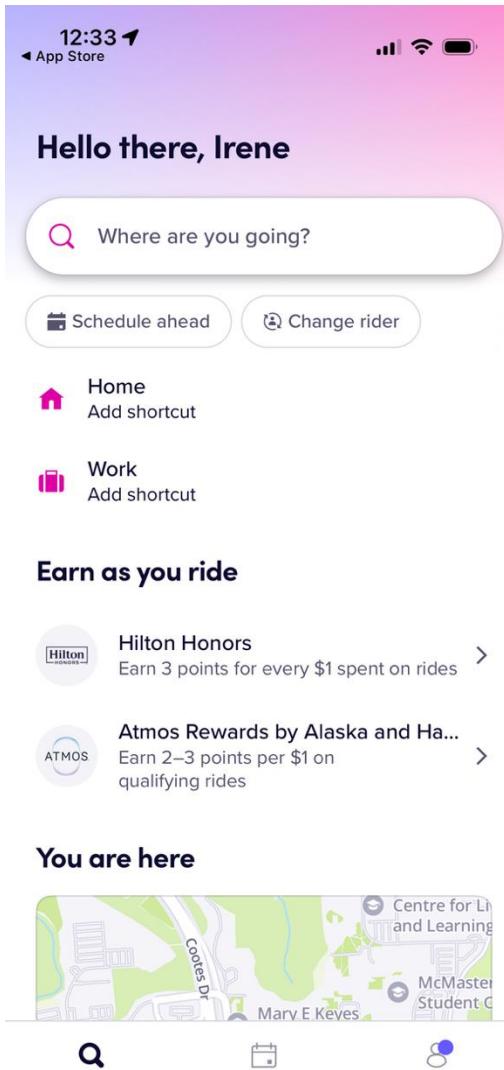
- Left Panel (Survey Editor):** A sidebar with various settings:
 - Question type:** Multiple choice.
 - Answer type:** Allow one answer (radio button selected).
 - Choices:** Number of choices set to 3. Buttons for - and + are visible.
 - Format:** List, Vertical alignment selected.
 - Response requirements:** Add requirements toggle is off.
- Middle Panel (Form Preview):** A preview of the survey titled "Test Project". It contains a "Default Question Block" with a question "Q1" and three choices: "Click to write the question text", "Click to write Choice 1", "Click to write Choice 2", and "Click to write Choice 3". Buttons for "Import from library" and "+ Add new question" are present.
- Right Panel (Question Editor):** A detailed view of the "Multiple Choice" question settings:
 - Required:** Off.
 - Multiple selection:** Off.
 - Randomize:** Off.
 - "Other" option:** Off.
 - Vertical alignment:** On.
 - Image or video:** Off.

Example 3: Rideshare App



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Example 3: Rideshare App



Example 3: Rideshare App

