Project 1, Milestone 2: Approach Thesis

Summary

By the end of this week, you should strive to create your initial approach theses. To get there, you will first ideate a number of possible approaches. Next, you will refine and prototype (as storyboards) several of the most promising ideas. Finally, you will get feedback on these candidates from your clients.

Relevant resources

- Lecture on Approach Theses, Storyboarding, and Ideation

- Strongly recommended: Alissa Millenson's Design Research 101: Prototyping Your Service with a Storyboard (really good tips for effective storyboards)

- Optional, but fun: Chapter 3 of Scott McCloud's "Understanding Comics" (explains how to write comics!)

Specific steps for this assignment

Step 1. Establish common ground

Review your need thesis. You may revise it based on the feedback you've gotten from teaching staff and fellow students. Make sure that everyone on the team understands the goals, obstacles, and constraints.

Step 2. Ideate!

Generate lots of ideas (aim for at least 5xN, where N = the number of people on your team). Aim for quantity and diversity (though it is OK to generate multiple variants of the same theme). Crazy ideas are good. You will not know where the boundary of reasonable is until you have crossed it. It may be easier to make an interesting idea feasible than to make a feasible idea interesting.

Recall the process for ideating as a team that we discussed during lecture. Ideate individually before you start sharing ideas with each other.

Step 3. Select, refine and make storyboards!

Select at least 4 most promising ideas. Make sure that there is some diversity among them. Refine the details. Now prototype each of these ideas as a storyboard. Be efficient, but professional (remember, you will have to show these storyboard to your clients!). Here's an

[example](#) that meets the basic expectations for clarity of story and presentation. Everyone can draw a basic storyboard using basic shapes. Expect to revise once or twice -- just like with any other piece of communication, you will rarely get it right on the first try.

Step 4. Get feedback from your clients!

Get feedback from at least two clients on each of the storyboards. Would they want to use your product? What are they excited about? What are they worried about?

Practical considerations:

- Make sure that the clients you talk to meet the criteria set out in your need thesis (e.g., if you are creating a solution for families with small children, seek out families with small children).
- Show at least two storyboards to each client you talk to. Clients who see only one option will give you a lot of false praise. Clients who see multiple options will give you more candid feedback.
- Ideally, work in pairs so that you can immediately discuss feedback with each other.
- Take notes!

Step 5. Synthesize and refine!

What have you learned?

First, note that the feedback you got on your storyboards may reflect not just on your approach thesis ideas, but also on the fundamental assumptions you made in your need thesis. For example, you did not anticipate that safety would be a concern. These concerns you uncover may not be part of the core tension, but still necessary to reason about while you iterate through the design process. Write them down as additional constraints (X_{1-N}), costs (Y_{1-N}), or obstacles (Z_{1-N}) in your need thesis (see Design Arguments PDF). Revise other components of your need thesis if necessary.

Next, synthesize what you have learned about the strengths and limitations of each of your initial approach theses.

Finally, create two distinct, refined approach theses. These concepts might be iterative refinements of your initial concepts, they might be novel combinations of elements of multiple initial concepts, or they might include substantially novel elements.

You will have to communicate these two concepts in your revised report and during the studio. It is up to you how you want to do that. Most teams choose some combination of description using words and appropriate illustrations (sketches of what the product might look/work like, storyboards). We have also seen teams put on brief skits to get their points across. You choose.

Document your progress

If appropriate, revise the parts of the report you handed in last week. If you make substantial changes, please mark them somehow so that your TF can more easily spot how you responded to their feedback and the additional evidence you collected from potential users.

For this week, you should describe each of your two final candidate approach theses and demonstrate that they address the core tension identified in your need thesis.

It is up to you how to structure your writing, but for each concept, you should somehow communicate the following elements:

A brief description of the approach: what does it do? What key benefits is it supposed to confer? This part may benefit from an illustration or two.

The key characteristics of the approach: which characteristics of your solution are essential to it satisfying the objectives laid out in the need thesis?

Describe how the obstacles of the need thesis have been circumvented and the goals have been satisfied.

Tying back to what you have learned in Expos, your *thesis* is that your approach resolves the core tension and satisfies most if not all auxiliary constraints in the need thesis.

Make sure to present your rationale for the key choices you made, supported by evidence.

The feedback you got for your clients is likely to provide useful evidence to support some of your choices (if they proved valuable in the field). If some of your initial choices proved ineffective, you can use client feedback to support your argument for why you developed alternative approaches.

Note that if you borrowed conceptual solutions from other domains (through analogical transfer), one argument you can bring to support your thesis is that the solution you borrowed was effective at addressing a similar objective in an analogical setting.

In the Methodological Appendix, include:

- The initial storyboards you have prototyped. For each, include a couple of key findings from your clients.
- Basic information about each client (or group) your team spoke to get feedback on storyboards.

➢ **Submit** a link to the current draft of your project report (including the Methodological Appendix) through the course Canvas site. We don't expect that the link itself will change, but resubmitting the link will make it easier for our TFs to revisit your report to give their feedback. Only one member of the team needs to submit.

Grading

- **Progress** (up to 20 pts). Has the team made reasonable progress?
- **Exceptional work** (up to 10 pts of extra credit). Design can excel in many ways, and often the best designs are unanticipated. To acknowledge and encourage this, each assignment offers a few points for this truly exceptional work. Great design is also rare. So these points can only be achieved by at most 10% of submissions.

This week's studio

Each team will present their revised need thesis and their current draft of the approach thesis. Each team will receive a critique on their approach thesis. Remember, effective design critique is systematic (i.e., addresses all major design decisions) and links design decisions to goals. Consider the following format for your feedback: "Given goal/constraint G, design decision D is/isn't effective because _____."