Lecture 13: The Craft of Interaction Design

Agenda:
- Discussion of Today’s Readings
- Persona Exercise
- USENET Discussion

Discussion of Today’s Readings

According to Lidwell, prototyping is the use of simplified and incomplete models of a design to explore ideas, elaborate requirements, refine specifications, and test functionality. He breaks prototyping into three basic kinds: concept, throw-away, and evolutionary. Concept prototyping is the fast, flexible, and inexpensive exploration of preliminary design ideas through models such as sketches and storyboards. Throwaway prototyping tests functionality and performance for specific parts of a system with one-off models. Finally, evolutionary prototyping starts with an initial prototype which is continuously refined until it evolves into the final system. In that case, requirements and specifications only define the next iteration of the prototype, not the final system.

Identify common problems with each of conceptual, throwaway, and evolutionary prototyping.

Saffer identifies several “tools of the trade”, foremost among them pencil and paper and whiteboards due to their speed and flexibility. Computer software for diagramming, drawing, illustration, prototyping, presentation, and conversion are all in the designer’s toolbox. You should learn several such programs in your course projects.

Designers use several models for representing research data: linear flows, circular flows, spider diagrams, venn diagrams, 2x2 matrices, and maps. Be able to produce any of these in instances where they are appropriate.

According to Saffer, personas are a documented set of archetypal people who are involved with a product or service. Personas are used to target user groups, rather than working with an ill-defined generic “user.”

When do demographics matter in the construction of personas?

Once personas are constructed (know how this is done), they should be used to generate scenarios (stories) and claims about how well the personas get on in the scenario. Designers ask “Could this persona do this task as it is designed?” for each of the personas they create.

Other techniques described by Saffer include sketches and models, storyboards, task analyses, task flows, use cases, mood boards, and wireframes. Know the basics of how each of these work and when they are appropriate.

For example, if you face a problem that calls for showing spatial relationships, you should know to use a map.

Cooper points out in Chapter 5 of About Face 2.0 that while logic suggests that one should aim functionality at “most people” or a “typical user”, the best way to design for a variety of users is literally to design for a variety of users, modeled as a variety of personas.

Cooper extolls the virtues of narrative as a design tool due to its power for communicating ideas. In design, narrative can be generated using scenarios in which our personas can exist. Chapter 6 of About Face 2.0 gives detailed information on how to use personas in scenarios to guide interaction design.
Discussion of Today’s Readings (Continued)

Saffer categorizes prototypes based on what they are made of: paper prototypes, digital prototypes, and physical prototypes. The form and fidelity the prototypes have depends on the type of product being designed as well as the available resources. The prototypes are used to explore characteristics of the design.

**Paper prototypes** are fast and cheap to create, and are used to explore how a product will work by serving as a walkthrough. “Each piece of paper contains one moment of the design.”

**Digital prototypes** can range from being lower fidelity static images to being 3D flythroughs of a product with cinematic production values. Digital prototyping often supports richer functionality, making the prototype strongly resemble a working system. What are the pros and cons of such high-fidelity prototyping?

**Physical prototypes** can also range in scale and fidelity from being a part of the design to an entire environment in which the design is used. These are obviously very popular where the final design artifact is not digital, but have their uses even for digital designs.

Once you have a prototype, test it on your intended users! But why, what do we get out of user testing? How should we act during testing, particularly in cases in which users are having a hard time? (Saffer suggests that designers should even avoid introducing themselves as designers. Why?)

The same ethical rules guiding design research discussed in the previous lecture hold true for user testing.

**Persona Exercise**

Work with your group to create personas for a few (say two) of your stakeholders. Ask yourselves a few questions about the design and answer them from the perspective of the personas you generate, using a scenario that you’ve generated for the personas to exist in. I’ll walk around the room to talk to you about what you come up with.

**USENET Discussion**

Use the remaining time to discuss your observations from using USENET newsgroups. How do they compare and differ from email? Why do websites try to create bulletin board forums even though newsgroups are available? Do you see different behavior and demographics between newsgroups and forums?

Medero gives a series of reasons why paper prototyping is so popular:

- Everyone loves paper (easy to use)
- Easy iterations (easy to update)
- Built for your budget (cheap)
- Easy documentation (write on it)
- Show me the paper (it can model UI)

There are several places in which paper prototyping can’t capture the interaction that will exist in a system noted in Medero’s article. Examples include refresh or load time, unnoticed messages, and working with or trying to represent certain multimedia content.

Medero advocates the use of paper prototyping in usability testing. Why wait until you are far along in your design to test it on users?!

For your individual project, you are required to make a low fidelity prototype and test it on users for your group project.