Human-Centered Design

Intro and Information Foraging Intuition



WashU CSE 256A
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#00: Mon, Jan 25, 2021

Nuts and Bolts

Calendar: good overview

Canvas: where to turn in assignments

Piazza: where to ask questions

Wiki: technical documentation and project details

What do students value about 256?

- The content - our three models were interesting and relevant.
- In-class activities and discussions were an effective and engaging way of more deeply understanding that content.
- The opportunity to experience and understand an iterative design process. (and for some, but not all, a design process driven by user feedback)

What makes students nervous?

- User testing as a way to be graded is unsettling because it doesn’t feel controllable (especially at the beginning).
  - The structure is set up to help you succeed. Multiple opportunities to submit, view feedback, and try again.
- Not everyone has web programming experience.
  - Each project has a starter lab to it that introduces everything you need to succeed in the project.

Models of Human Behavior using Interfaces

- What are models of human behavior good for?

Help to navigate things - develop interfaces that can positively influence behavior

Accessibility to more people

Anticipating human needs can result in interfaces that are more effective

Human behavior is predictable - what designs are going to work best

Bridging gap between developers and user experience

Models of Human Behavior using Interfaces

- What are models of human behavior good for?
  - Predicting how an interface will be used
  - Understanding the behavior of particular users using an interface

We’re going to start with a model of how users search for information: Information Foraging Theory.

But first, we’re going to spend some time developing our own intuitions about it, which should help to make the model more understandable.

Also, don’t worry if you don’t fully understand it at first, it will take some time.

Observing Information Search

- Why? Careful observation of what and *why* users struggle with completing a task provides important information about their approach and how it matches or doesn't match the interface they have to work with.
- We'll use our observations as a basis for developing our own "pre-model" of information search.

Question: What kinds of (observable) actions do people perform when searching?

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Typing in keywords

Scanning search results

Clicking on a link

Evaluating page

Returning to a previous page

ACTIVITY: How People Search for Information

In breakout groups, choose one person to be the recorder and one person to be the user.

Mechanics: Open the google doc activity folder, navigate to the directory for your group (should be a letter), write everyone in the names group in at the top.

Recorder: The recorder should observe and record the process. What actions does the user take? Why do they take those actions? What information informs their decisions to act? Make a table of “actions | rationales” and record everything. The more detailed, the more useful you’ll find it. **Write down each action and rationale in the google doc.**

User: You’ve decided that it’s time to buy a new bicycle. You live fairly close to campus and want to be able to commute by bike. You are also interested in occasional riding on paved bike trails. You have a budget of $1000. Since this will be your primary form of transportation, you’d like to get something nice. What should you get? You should be able to discuss your choice with supporting details about features and use. In other words, don’t just mindlessly accept the first bike you find.

ACTIVITY (2): Modeling Information Search

Activity: Take the information you gathered in the previous step and build a flow chart of information search. Your flow chart should include branching to handle all of the different kinds of actions from a given state. For example, in a set of web search results, a user can click on a result, navigate to the next page of results, or submit a new query. Make sure to capture all of these actions and also the situations that might lead a user to take each one.