Mental Models, Personas & Scenarios

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Overview
• Mental Models
• Personas
• Scenarios

Mental Models

- Cooper presents three types of models:
  - Implementation Model:
    How it works
  - Mental Model:
    How the user thinks it works
  - Manifest Model:
    How the machine presents itself to the user

Mental Models : Implementation Model

The way the engineer must build the machine or software.

For example:
Software is written in code; the engineer spends many years learning how to write “good code.”
What is happening behind the scenes, in that code, is the implementation model – technically, how things are really working.

Mental Models : Mental Model

The way the user thinks the machine or software works.

For example:
“I put my key in the lock and there is a big shape of the key inside; if the two match up, then it lets the knob turn”
Mental Models: Mental Model

The way the user *thinks* the machine or software works.

For example:

"I enter my username and password, and my computer talks to another computer which knows about my username and password, and if they match up, then it lets me continue"
Personas

- An easy method to help us approximate the Mental Model is to create Personas of our users:

  “Develop a precise description of our user and what he wishes to accomplish” (Cooper).

  **precise**: Specific, detailed, verbose, in-depth

- **user**: A hypothetical individual, with concrete feelings, desires, skill levels and needs.

  **wishes to accomplish**: their work, goals, tasks

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Personas: Why Use Them?

- Personas become “real” – people can visualize and hypothize about John Smith better than The User.

- Personas help us understand varying skill levels.

- Personas create a shared understanding of the end users – for the entire design team (including designers, marketing folk, engineers, executives, etc).

- Personas emphasize that The User Is Not Like Me.

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Personas: Aspects of a Successful Persona

- **Specific**

- **Hypothetical**

- **Precise rather than Accurate**

- **One per character (a project can have many Personas)**

- **Use pictures!**

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Personas: An Activity

- Let’s come up with a Persona to help us design a new sketchbook for a Computer Art major.

  - Where do they live?
  - What do they wear?
  - What kinds of music do they like? Films? Food?
  - Do they drive a car? A bike? A scooter?
  - What do they do on the weekend?
  - Do they have any computers in their house? How many?

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Scenarios

- After we have developed our Personas, and we understand their Mental Models, we can create Scenarios:

  “A scenario is a concise description of a persona using a product to achieve a goal” (Cooper).

  **concise**: short but complete; breadth instead of depth

  **product**: assume the product (software or physical device) exists, even if it doesn’t

  **goal**: the reason why we perform a task

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Scenarios: Why Use Them?

- Scenarios help us validate our design

- Scenarios help us check our assumptions

- Successful Scenarios help us transfer theoretical/conceptual design to “wire frame” design

- Like Personas, Scenarios create a shared understanding of the end users – for the entire design team (including designers, marketing folk, engineers, executives, etc).

- Like Personas, Scenarios emphasize that The User Is Not Like Me.
Scenarios: Writing Good Scenarios

- Brainstorm, within the context of our problem domain, the goals our Personas will have.
- Write the Scenarios for a specific Persona.
- Go for breadth rather than depth – it is more important to describe things from start to finish rather than in exhaustive detail.

Scenarios: An Activity

- Taking our computer art Persona from before, what are the Scenarios they would go through while using the sketchbook?
  - What are their goals?
  - What level of technology prowess can we expect, based on their persona?
  - What steps would they go through to achieve their goals?
  - Can you start to imagine life without this sketchbook for this Persona?

Scenarios: Good For Presentations

- Mental Models
- Personas
- Scenarios

Wrap-up