INFO3315 Human Computer Interaction

Worksheet Week 8 – Evaluation

In this tutorial, you will be evaluating prototypes you created in your previous tutorial. In the first hour, you will need to **run Cognitive Walkthrough**. You can find the demonstration of the method in Week 7 Lecture (video and slides). Informed by the findings from your Cognitive Walkthrough, you will need to modify the interface accordingly. Then, in the second hour of the tutorial, you need to **evaluate the modified interface** with the representatives from another group.

Part 1 – Cognitive Walkthrough

1. Use your prototypes/wireframes that you created in the previous tutorial.
2. Define a user goal that needs to be accomplished with the help of your prototype.
3. Create sample tasks (at least 2) that focus on the aspects of the design to be evaluated (e.g., delete an item from a shopping cart, pay for items in the shopping cart, place an order, pay for an order, etc).
4. Using your prototype/wireframes, define a clear sequence of the actions needed for the users to complete the task.
5. Within your team, form sub-teams of 2-3 people: one person will act as a researcher running the Cognitive Walkthrough, while the other researchers will take notes. Make sure you all get to do the process at least once during the tutorial.

a. Each sub-team needs to select a task to run a Cognitive Walkthrough.

6. Place yourselves within the context of a typical scenario applicable to your project.
7. Perform the Cognitive Walkthrough method in pairs.

a. Will the correct action be obvious?
b. Will the user understand instructions?
c. Will the user interpret machine action correctly?

8. The other researcher(s) is noting down the problems and critical issues with the interface.
9. Informed by the findings from Cognitive Walkthrough, discuss the problem and revise the design accordingly.
10. Iterate the process if necessary until the prototype is flawless.

Part 2 – Evaluation with peers

You need to conduct an interview with the representatives from another group to collect feedback on your designs. You can perform Heuristic Evaluation and evaluate the 10 Nielsen heuristics. Heuristics and sample questions are provided below.

1) Visibility of system status

- Does the design clearly communicate its state?
- Is feedback presented quickly after user actions?

2) Match between system and the real world

- Will user be familiar with the terminology used in the design?
- Do the design's controls follow real-world conventions?

3) User control and freedom

- Does the design allow users to go back a step in the process?
- Are exit links easily discoverable?
- Can users easily cancel an action? Is Undo and Redo supported?

4) Consistency and standards

- Does the design follow industry conventions?
- Are visual treatments used consistently throughout the design?

5) Error prevention

- Does the design prevent slips by using helpful constraints?
- Does the design warn users before they perform risky actions?

6) Recognition rather than recall
- Does the design keep important information visible, so that users do not have to memorize it?
- Does the design offer help in-context?

7) Flexibility and efficiency of use
- Does the design provide accelerators like keyboard shortcuts and touch gestures?
- Is content and functionality personalized or customized for individual users?

8) Aesthetic and minimalist design
- Is the visual design and content focused on the essentials?
- Have all distracting, unnecessary elements been removed?

9) Help users recognize, diagnose, and recover from errors
- Does the design use traditional error message visuals, like bold, red text?
- Does the design offer a solution that solves the error immediately?

10) Help and documentation
- Is help documentation easy to search?
- Is help provided in context right at the moment when the user requires it?

For each of the Heuristics you need to identify issues with the current design and ask for recommendations to improve the design. You can use the template recommended by Nielsen Norman Group on Heuristic Evaluations.

Then discuss the discoveries and recommendations within your groups and apply changes to the prototypes.

References
Heuristic Evaluations: How to Conduct. (accessed 2023). Nielsen Norman Group. https://www.nngroup.com/articles/how-to-conduct-a-heuristic-evaluation/