Human Computer Interaction CS449 – CS549

Assignment-3 Cognitive Modeling in HCI

Students will use CogTool to produce a Keystroke-Level Model of a skilled user buying a shoe via mobile application.

Due date – Upload to SUCourse by November 26th Sunday, **Midnight (Late submission will not be accepted)**

Deliverables: Report (you may include any supporting figures, diagrams, graphics, photographs, sketches etc. ~2-3 pages) and **project file**

Grading: 10 points

Objectives

- To learn to model task execution behavior of a skilled user with CogTool.
- To practice making predictions of task execution time and use them to focus design effort.

Directions

- This is an individual homework so do it by yourself.
- Get the modeling tool, CogTool, and its Tutorial and User Guide from www.cogtool.org
- Mobile app images you will need for this homework are available in SUCourse

Compare & Contrast two online shopping applications

You will be modeling a skilled user setting buying "Nike air force 1 white women's shoe size 7" from "Amazon" and "ebay" on a mobile phone. Procedures related with given screens for this shopping task are as follows. Assume that the application is open.

Buy from Amazon

1. Start at "Amazon home page"
2. Click "search" field
3. Enter "nike air force" to the "Search" field.
4. Read the list until the line "nike air force 1 womens" from the list
5. Select "nike air force 1 womens"
6. Select "White shoes icon". (The one on the right)
7. Scroll down the page
8. Scroll right for choosing the size.
9. Select the number "7" for the size.
10. Scroll down the page
11. Push the "Buy Now" button.

Buy from ebay

1. Start at "ebay home page"
2. Click "search" field

3. Enter “nike air force” to the “Search” field.
4. Read the list until “nike air force 1 womens” from the list
5. Choose “nike air force 1 womens”
6. Select “White shoes icon”.
7. Scroll down the page
8. Push “US Shoe Size (Women’s)” field
9. Read until Women 7
10. Select “Women 7”
11. Push the “Buy it Now” button

What will you do?

Build a project with CogTool that can execute this procedure using the given images. (NOTE: You will NOT need any images other than the ones given)

Make sure you think hard about the types of widgets you use. Keep the table of widget types (Appendix B in the User Guide) open and next to you when you are doing this assignment and refer to it often. Consider all the widget types; don’t just pick the first one that looks like it might work.

Build a project that has all the widgets necessary to do this task. Create a task called “Buying a shoe”, demonstrate how to do this task, and get a prediction of how long it will take for amazon and ebay.

Your report must include the following sections and answer the questions:

1. Which shopping procedure is faster, Amazon or ebay?
2. Why is the faster procedure faster?

Answer this question by referring to CogTool’s models , and also readings (week-5 and week-6), NOT just common sense. Use the scripts that CogTool generates or the visualizations of the scripts and refer to things you see in those parts of CogTool to explain *why* the faster procedure is faster. Feel free to include pictures in your report if it is easier for you to explain your reasoning using pictures.

3. How can you make the slower procedure faster? How much time can a user save with this change?

4. References

Important Information

CogTool doesn’t propagate changes to designs after you have already demonstrated scripts.

- If you change the design after demonstrating a script, you MUST delete the script and demonstrate the task again to give accurate predictions – fortunately, it's fast to demonstrate tasks.

Deliverables

- Create project folder with the following title:

  CogTool HW <LastName>_<FirstInitial>

  For example, Ali Tan's folder would be called

  CogTool HW Tan_A

  This folder contains two files:

  1. A CogTool Project file (.cgt) with the following title:

     <LastName>_<FirstInitial>_HW.cgt

  2. Attach a report file that answers the questions, presents and justifies your design. Name this file with the following title:

     <LastName>_<FirstInitial>_HW

- Create zip file from project folder with the following title:

  CogTool HW <LastName>_<FirstInitial>.zip

- Upload your zip file to SUCourse

Grading will be based on:

- Incorrect file names
- A CogTool Project file that doesn't run
- Incomplete set of frames in the design
- Unreasonable/Missing types of widgets in the frames
- Unreasonable/Missing transitions between frames
- Unreasonable/Missing scripts
- Unreasonable/Shallow answers to the questions without references to the resources