COMPSCI 345 / SOFTENG 350

Human-Computer Interaction

Assignment 1: Usability Evaluation

Worth 6% of your final grade
This assignment is due by 11:59pm on Sunday 22 March 2015
This assignment must be done individually

Aims

The aim of this project is to give you experience in performing a heuristic evaluation of a system and then planning a usability test.

Background

Your task is to evaluate the parking meters in Princes St (you must test a meter that looks like this – there are two types of machines in Princes St, these are at the Science end). Imagine that many people have been complaining to the city council about the parking meters. They say that the reason they did not pay the right amount and therefore got a parking ticket is because the meters are so hard to use (this may not be true, but it could be).

You have been contracted to evaluate the parking meters to see if people's complaints are justified. You will notice immediately that there are 3 ways to pay for parking. The interim deliverable to the city council is the product of this assignment.

There are two parts to this assignment: first undertaking a heuristic evaluation of the parking meters so that you have a detailed understanding of the interface; second planning (but not conducting) a usability study where you would ask others to use the system.

Details

Task One: Heuristic Evaluation Report

For the heuristic evaluation you need only examine **two** of the payment methods.

1. Model the interaction with a state transition network (see lecture 3). Note you must use the diagram notation from the lecture – this is taken from Dix pps 548-556 (available in the resources tab on Piazza). (Hint powerpoint diagraming is as good as any for preparing your STN)

2. Document your heuristic evaluation using Nielsen's usability heuristics see lecture 5 and [http://www.nngroup.com/articles/ten-usability-heuristics/]. You may also find this guide useful [http://www.nngroup.com/articles/how-to-conduct-a-heuristic-evaluation/] – however NOTE that this is a plan for several people to do a heuristic evaluation whereas you are doing this in preparation for a usability test (which is a different beast). Maximum word count 1000 (some heuristics may be N/A others substantial).

3. Provide a summary of your heuristic evaluation findings with 3-4 bullet points of key findings and a total word count 150-250 words. You may include 1 or 2 images if you feel they will be helpful.

Task Two: Usability Test Plan

Write a usability test plan for the parking meters with all **three** payment methods. Note unlike heuristic evaluations where you report opinions, the results from this test should be quantitative (i.e. numbers) to complement/support your heuristic evaluation. Typically you will be planning to report time and errors.

The council has agreed to pay for 12 people to participate in the usability test. The budget is sufficient for them to spend 30mins each on the test, in this time expect that they can test all three payment options. You are **not** going to conduct this test – you're just writing the plan. Use the headings below to guide your writing. In addition to the lecture material in lectures 6 & 7. There are many, many usability test plan guides on the web that you can use. A couple we particularly like are http://www.usability.gov/how-to-and-tools/resources/templates/usability-test-plan-template.html and the dashboard here http://www.userfocus.co.uk/articles/usability_test_plan_dashboard.html
There is no set word count for this, but we suspect a good test plan would come in around 1500-2000 words.

Usability Test Plan Template

Product under test

Test Objectives

Participants

Equipment

Test Tasks

Test Procedure

Data to be collected

Data Analysis Plan

Note

We expect this assignment to be presented at a high professional standard. You will lose significant marks (up to 20%) for poor grammar, spelling and presentation.

Submit

An electronic copy of your report as one pdf file via the online Dropbox by 11:50pm on Sunday 22 March. Please name your PDF document using your UPI (e.g., bpli001.pdf). You can make as many submissions as you like, only your last submission will be marked.
https://adb.auckland.ac.nz/

Questions

Direct questions about this assignment to the class Piazza forum
piazza.com/aucklanduni.ac.nz/semester12015/cs345_se350/home

You should plan to spend 15 hours on this assignment.

Markers will assess your deliverables as follows:

Heuristic Evaluation	**(20 Marks)**
State Transition Diagram	10 Marks
Accuracy (8)	
Syntax (2)	
Documented Heuristics & summary	10 Marks

Usability Test Plan	**(25 Marks)**
Product under test	1 Mark
Test Objective	1 Mark
Participant	2 Marks
Equipment	1 Mark
Test Tasks	5 Marks
Test Procedure	5 Marks
Data to be collected	5 Marks
Data Analysis Plan	5 Marks

Presentation	(**15 Marks)**

Finally

You will have to pay for some parking to undertake this testing. While the assignment is individual we have no objection to you doing the actual experimenting with your friends. And if paying for parking is going to be a financial burden such that you will have to sacrifice lunch in order to be able to afford it, please speak with Beryl.