COMP3511/COMP9511: Human Computer Interaction

UNSW - School of Computer Science and Engineering (2004 - Session 2)

Evaluation Assignment (2% of final grade)

In this assignment you are required to evaluate the CSE High School portal web site based on usability and cognitive load principles.

This assignment is to be done individually and NOT in groups.

The Maximum length of this paper is 8 pages.

Scenarios

Develop two scenarios about high school students interested in studying computing. Remember that scenarios help you develop an idea of the context of use. They do NOT address the question of HOW things will be done.

Evaluation

Review the following web site against the characteristics of usable systems:

www.computing.unsw.edu.au

Characteristics of Usable Systems

♦ **Support workflow**
   Ensure that it allows users to complete their tasks in way that they are accustomed to

♦ **Be consistent**
   In terms of visual design, navigation, terminology, behaviour

♦ **Provide clear navigation and orientation**
   Make it easy and obvious how to get from one place to another in the site; make it obvious where you are in the site

♦ **Give users control**
   Make sure that users are driving the interaction, not the computer

♦ **Increase learnability**
   Assist users in becoming productive with the system (e.g., provide help, useful hints, etc.)

♦ **Reduce memory load**
   Don't require humans to remember things – provide instructions, support copy and paste, provide information where and when users need it

♦ **Provide effective feedback**
   Provide meaningful messages and timely feedback

♦ **Optimise visual clarity**
   Ensure that the pages are laid out in a way that makes it easily readable, aesthetically pleasing, and appropriate for the organisation delivering the information

For each heuristic provide a short description, in your own words, of how it can be understood in terms of **Cognitive Load theory** (CLT).

Then for each example of the heuristic, relate your findings to your knowledge of our cognitive architecture. This includes a limited **working memory** used to process current information and an unlimited **long-term memory** used to store information over time . Explain how the website structure has either a positive or negative effect on our cognitive make-up. For example, too many colours would result in poor visual clarity. This makes it harder to attend to critical information and find what you are looking

for. Increased search places an unnecessary burden on our limited working memories. Although this is an example of a negative effect, try to include some positive examples as well. Be aware that some of your examples can be explained in terms of the different CLT effects such as the split attention effect, the audio-visual effect, the redundancy effect and reducing search.

Method of Documentation

Scenarios

Scenarios should be about half a page each.

Evaluation

Description of each heuristic in terms of Cognitive Load theory: A brief description of how each heuristic can be explained in terms of our cognitive architecture.

Individual short paper, structured around each of the eight characteristics. Provide a minimum of two examples of how the site either does or does not support each of the eight characteristics. Therefore, your paper should include at least sixteen examples – either positive, negative, or a combination of both – about the CSE web site. Remember to also explain your examples in terms of what sort of effect (negative or positive) the current layout is likely to have on our limited working memory and unlimited long-term memory.

Due Date

5pm on Wednesday 15 September 2004