

## Simple Heuristic Evaluation (Individual)

***Due: Thursday, November 1, 2007***

### Overview

The goal of this assignment is to learn how to apply Nielsen's heuristic evaluation technique on one small, but flawed, piece of a user interface.

### Deliverable

The following figure illustrates a shopping cart for an online store. Perform a heuristic evaluation of this interface, and describe at least **twelve (12)** usability violations. Label each violation with a number on the figure and make a list of violations.

For each problem, you must discuss *which guideline* is violated, and *why*. You should also *suggest a solution* to solve each of these problems.

Use Nielsen's *second* set of heuristics to label each violation. (This is the same set that was used in the hall of fame/shame assignment – see attached.) Remember to list each violation separately, and list the name of the related heuristic. You should write your answers on another sheet, attach it to this sheet, and turn both in ***with your name on them***.

The figure for this assignment appears on the back side of this page.

CSE440 Autumn 2007: Assignment 5  
 Instructor: James Landay

Carl's Car Audio and Electronics - Shopping Bag

[what fits my car?](#)   [logout](#)   [continue shopping](#)

Your vehicle: 1989 Tercel  
 To select a different vehicle, click "What Fits My Car" above

**PLEASE NOTE**

Item #	Message
<b>204EL570</b>	This component is <b>NOT</b> recommended for your vehicle. We suggest removing this item (bolded in red below) from your cart. Please call us toll-free at 1-888-955-6000 and we'll be glad to provide further assistance.

Quantity	Item #	Remove?	Item Description	Price	Total
<input type="text" value="3"/>	#033DVM4800	<input type="checkbox"/>	<a href="#">Denon DVM-4800 DVD Video Changer</a>	\$1,199.95	\$1,199.95
<input type="text" value="1"/>	<b>#204EL570</b>	<input type="checkbox"/>	<b><a href="#">Bazooka EL570 5"x7" 2-way speakers</a></b> Vehicle: 1989 Toyota Tercel Liftback with equalizer or radio delete option ( <a href="#">change</a> )	\$79.95	\$79.95
<input type="text" value="1"/>	#158DSCP50	<input type="checkbox"/>	<b>Special</b> <a href="#">Sony DSC-P50 Digital Still Camera, 2.1 Mega Pixel</a> Save \$100! Was \$399.95, Now: \$299.95	\$299.95	\$299.95
<input type="text" value="1"/>	#133DVDLA95	yes <input type="checkbox"/> no <input type="checkbox"/>	<a href="#">Panasonic DVD-LA95 Portable DVD-A/V Player with 9" Screen</a> -- This item is temporarily out of stock --	\$999.95	\$999.95
<input type="text" value="1"/>	#170GXT160	<input type="checkbox"/>	<a href="#">Maxell GX-Silver T-160 VHS Video Tape</a>	\$2.49	\$2.49
<b>Total</b>				Merchandise Total:	<b>\$2,582.29</b>
				Standard Shipping Charge:	<b>\$13.95</b>
				Alternative shipping options available before final checkout	
				Order Total:	<b>\$2,596.24</b>

 

- To change an item's quantity, enter the correct number in the **Quantity** column, then press **Update Cart**.
- To remove an item, check the box in the **Remove?** column, then press **Update Cart**.
- To order an item that appears in your printed Crutchfield catalog, enter the item number into the Cart and click **Update Cart**.
- International visitors, please [click here](#).

Online version available at:

[http://www.cs.washington.edu/education/courses/cse440/CurrentQtr/assignments\\_files/assign5.jpg](http://www.cs.washington.edu/education/courses/cse440/CurrentQtr/assignments_files/assign5.jpg)

## **Ten Usability Heuristics by Jakob Nielsen (2<sup>nd</sup> version)**

These are ten general principles for user interface design. They are called "heuristics" because they are more in the nature of rules of thumb than specific usability guidelines.

### **H2-1. Visibility of system status**

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

### **H2-2. Match between system and the real world**

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

### **H2-3. User control and freedom**

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

### **H2-4. Consistency and standards**

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

### **H2-5. Error prevention**

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

### **H2-6. Recognition rather than recall**

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable when appropriate.

### **H2-7. Flexibility and efficiency of use**

Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

### **H2-8. Aesthetic and minimalist design**

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

### **H2-9. Help users recognize, diagnose, and recover from errors**

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

### **H2-**

### **10. Help and documentation**

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.