### **QUESTION 1: HEURISTIC EVALUATION**

#### **Recurrent Heuristic Violations**

[H1-1 Simple & natural dialogue] [Severity 4]

- Navigation hierarchy is flat. This results in an overwhelming number of hyperlinks from the navigation bar, and forces users to scroll through a long and confusing sequence of options. The information architecture needs to be completely reorganized.

[H1-1 Simple & natural dialogue] [Severity 1]

- Organization name only needs to appear once on the website. Duplication of name in banner and in the body of the page provides unnecessary clutter.

[H1-2 Speak the users' language] [Severity 3]

- The car logo with phone number at the bottom of each page is a hyperlink back to the top of the main page. Users might expect such behaviour from a "Return to top" icon or the recognized organization logo. A car logo in combination with a phone number implies a link to contact information.

[H1-3 Minimize users' memory load; H1-6 Clearly marked exits; H1-5 Feedback] [Severity 2]

- The obscurity of the navigation bar makes it hard to return to the homepage or other previous states. This increases the user's memory load regarding prior navigation, prevents clean exiting, and provides no feedback on browsing activity. Some sort of "bread crumb" display, or navigation hierarchy, would make it easier to remember the location of current within the larger website context.

[H1-3 Minimize users' memory load] [Severity 2]

- Scrolling text requires users to remember the full sentences in their heads. Moreover, it encumbers the task and is difficult to read.

[H1-4 Consistency] [Severity 4]

Much of the text is underlined, implying hyperlinks in many cases where none exist.

[H1-4 Consistency] [Severity 3]

- Diversity in colour, font size, and text alignment makes navigation very difficult.

#### **Cars 4 Causes Home Page**

The task of a first-time user visiting the Cars 4 Causes home page is to get high-level information about this organization and what it does. After an initial orientation, the home page should serve as a portal to other task-specific information as well as different services provided by the site/organization.

With regards to the first task, this homepage does contain the raw overview information; however, the data is hidden below a distracting animated image, between brightly coloured, duplicate menus, and broken up by confusing choices in white space, typography, and colour. The second task is even more difficult, for the key indices of navigation are scattered everywhere on the site except for the two places where one would expect to find them: horizontally across the top of the page or vertically beginning at the top left.

[H1-1 Simple & natural dialogue] [Severity 4]

- This homepage has three different navigation bars on the left, right, and bottom.
- The rightmost series of pictures appears to be a navigation bar, yet some of the images are hyperlinks and some are not.

[H1-1 Simple & natural dialogue] [Severity 3]

- The flow of text and images is disorganized, both in content and layout. Arbitrary insertion of whitespace further segments the data.

### [H1-4 Consistency] [Severity 4]

- The rightmost images can be mistaken for buttons. This is misleading, because the image is not a hyperlink, only the enclosed text. Also, some of the text are hyperlinks and some are not, although they all look the same.

## [H1-4 Consistency] [Severity 4]

- The Donations Form is linked from multiple disparate anchor text, including "Nationwide Car Donations," "Donate Now," and "Donation Form."

### [H1-4 Consistency] [Severity 3]

- Lists of hyperlinks on left, bottom, and right of page is not consistent.

#### **Cars 4 Causes How To Donate**

A user navigating to the How To Donate page presumably wants to get information about the process of donating her car to a given charity.

The main problem with this site is that the information that the user seeks is not immediately apparent after the site loads. Even on a fairly large monitor, the excessive number and size of graphics at the top of the page, including irrelevant entities such as today's date and a duplicate of the organization name, drive the text content below the readable screen area. Nielson argues that only a very limited number of users actually scroll beyond the first screen (although this number is rising. See http://www.useit.com/alertbox/9712a.html).

### [H1-1 Simple & natural dialogue] [Severity 1]

- Donation process might be better served by a numbered list of specific action items, followed by explanatory text, instead of actions embedded within paragraphs. "Step One" could be more concisely worded, "1."

### [H1-1 Simple & natural dialogue] [Severity 1]

- Graphics need to be rearranged/recolored/redrawn in order to complement text, not distract from it.

#### [H1-3 Minimize users' memory load] [Severity 2]

- The steps in the donation process should be documented more widely than just on this page. For instance, once a user has submitted a donation form, she should receive an outline, with contact information, timelines, and clear expectations from the start, to allow her to track the process easily.

#### [H1-10 Help and documentation] [Severity 0]

- While this may be outside of the functionality that this organization can afford to offer, greater documentation and tracking of donations might be a worthwhile consideration. Considering the significance of this kind of donation, further information about which towing company will be taking this vehicle, which lot that car is going to, how much it is selling for, how long it has been on the market, etc. could be made available through an online, regularly-updated database.

#### **Cars 4 Causes Donation Form**

The task of a user at the Donation Form Page is to schedule her car for a pick-up/donation. This involves submitting all the information needed in order to register her car.

Apart from the same problems we see at the How To Donate page – such as excessive scrolling – the main problem with this page is non-standard formatting. The form is

broken up arbitrarily in one or two columns, left-, centre- and un-justified, and inconsistent in a variety of ways that makes supplementary information hard to find.

# [H1-1 Simple & natural dialogue] [Severity 2]

- The "mail to" information should be provided alongside the links to the Word and PDF documents. Providing that information at the bottom of the form will induce users to print and mail the completed webpage, graphics and all.

### [H1-1 Simple & natural dialogue] [Severity 2]

- Much of the vehicle information requires clicking a drop-down box to select an option, even if there are only two options available. This step could be simplified with the use of a few two-option radio buttons.

### [H1-1 Simple & natural dialogue] [Severity 1]

- Text box alignment is arbitrary and confusing. The "mail to" information at the bottom of the page is discontinuous with the rest of page flow. Why are "Donor Information" and "Vehicle Information" right justified?

### [H1-1 Simple & natural dialogue] [Severity 2]

- Typically, the donor address and the vehicle address are the same. There should be an option to specify, "Same As Above."

### [H1-2 Speak the users' language] [Severity 1]

- Both Word and Adobe Acrobat have standard icons which many websites use to indicate that a PDF or DOC file is available. This would be easier to identify at first glance than the current blue text label.

### [H1-3 Minimize users' memory load] [Severity 1]

- The current interface forces users to remember details such as make, model, and charity information. It would be convenient to have a tool to enable selecting makes and models for existing cares from a list, and a similar tool to automatically pre-fill values from charities that already have an account with Cars 4 Causes.

### [H1-5 Feedback] [Severity 3]

- Upon clicking "reset," the entire form is automatically cleared. There needs to be a check to ensure that the user truly wants to erase all data.

#### [H1-5 Feedback] [Severity 2]

- Upon clicking "submit," users should be given a preview of the data they entered, as it will be stored, in order to verify all fields. Users should also be encouraged to save such information for further reference.

#### [H1-6 Clearly marked exits] [Severity 2]

- User should be given the option of saving and returning to this form, in case there is further information they need to gather. It would also be helpful if the page retained its values even after navigating away, in case donors accidentally click on a hyperlink. In such a case, it would make sense to have a "reset" button at the top of the form.

### [H1-7 Shortcuts] [Severity 0]

- Perhaps frequent donors should be able to load their account information to the form automatically. In fact, there is a variety of account-specific information that could facilitate multiple donations concurrently or sequentially, should the need arise.

### [H1-8 Precise & constructive error messages] [Severity 4]

- There are no error messages.

#### [H1-9 Prevent errors] [Severity 2]

- There are currently no checks on the validity of submitted data. All fields should be verified to the greatest extent possible, so that users know they are submitting complete data.

### [H1-9 Prevent errors] [Severity 1]

- Nothing on the donation form indicates that this is a California-based charity. It is doubtful that this organization would be able to market cars from all the other states. This restriction should be made clear on the form.

### [H1-9 Prevent errors] [Severity 1]

- The "submit" and "reset" buttons should be placed farther apart. There should be more whitespace between these buttons and the graphic/link below.

### [H1-10 Help and documentation] [Severity 0]

- Some users might not understand the reference to "title" under Vehicle Information, especially given the existence of another field, "title" under Donor Information. A tool tip could be used to clarify meanings here. VIN could also be tool-tipped with "Vehicle Identification Number."

#### **Cars 4 Causes Classic Cars 4 Sale**

The task of a user at the Classic Cars 4 Sale page is to get information about, and occasionally purchase, a unique type of "classic" car model.

The top of this page addresses the next step involved in a car purchase, pre-empting the user's chance even to browse the cars in the first place. The body of the page is unusually confusing because of the high number of underlined words, a convention for hyperlinks, which, in this case, is completely misleading. In terms of the content, many of the cars listed are already sold; this is not an issue is the webmaster is catering towards idle curiosity, but if we are interested in users seriously considering a purchase, then we need to provide a mechanism to filter by availability.

## [H1-1 Simple & natural dialogue] [Severity 2]

- Users should be able to filter by a variety of facets, such as availability, geography, and year, not just car types.

### [H1-1 Simple & natural dialogue] [Severity 1]

- Transmission, cylinders, and mileage would be useful additional fields.

#### [H1-1 Simple & natural dialogue] [Severity 2]

- Excessive explanatory text at the top of the page forces repetitive scrolling.

#### [H1-2 Speak the users' language] [Severity 0]

- Use of the phrase "location site" is redundant and uninformative. "Location" alone would suffice.

### [H1-2 Speak the users' language] [Severity 1]

- The phrase "Classic Cars Homepage" may be confused with the Cars 4 Causes homepage.

### [H1-3 Minimize users' memory load] [Severity 3]

- Poor use of space makes it hard to view many cars at once, or to compare similar characteristics among different cars.

### [H1-4 Consistency] [Severity 4]

- Features should be aligned to facilitate easy comparison among cars.

### [H1-4 Consistency] [Severity 1]

- Some search pages indicate "COMING SOON! Motorcycles, Boats, RV's/Trailers," while others provide a link to the Classic Cars Homepage, while yet others have nothing at all.

#### [H1-5 Feedback] [Severity 2]

- When selecting facets for search, there should also be some indication of the number of cars in each category.

[H1-6 Clearly marked exits] [Severity 0]

- Users should be able to save cars of interest to a personal "cart," so that they can exit the Classics page without losing information about specific cars.

[H1-7 Shortcuts] [Severity 1]

- A "cart" option as well as a faceted search option, both discussed above, would allow returning users to shop more easily.

[H1-10 Help and documentation] [Severity 0]

- For users without much background in classic cars, some reference information might be helpful. At the same time, it might unnecessarily clutter the page.

#### **Cars 4 Causes Current Events**

The task of a user at the Current Events page is to get information about recent activities that this organization has undertaken. Presumably, this is to promote the marketing, credibility, and prestige of this organization, as well as awareness of other activities in which it may be peripherally involved.

The overriding problem with this page is the extremely poor navigation interface, which presents a list of current events on a scrolling navigation bar such that users must wait for the image to scroll to the appropriate section before clicking on the link. Admittedly, there is another navigation bar to the right of the introductory text; however, the instructions on the page point only to the scrolling interface. This is unduly complex and cumbersome, with very little marketing or presentation benefits. Another notable problem in this page is the explanation provided for the contents of the page. "Current Events" is a standard subject requiring little elaboration. Directing users to such dialogue introduces a completely unnecessary intermediary step between them and the information.

[H1-1 Simple & natural dialogue] [Severity 1]

- Title of body text is cluttered and unreadable.

[H1-1 Simple & natural dialogue] [Severity 2]

- The information about Cars 4 Causes at the bottom of the page is inconsistent with the rest of the content of the page. It should be deleted.

[H1-1 Simple & natural dialogue] [Severity 4]

- The body text does not provide a clean, simple list of current events, but directs the user to navigate elsewhere.

[H1-3 Minimize users' memory load] [Severity 4]

- The scrolling current events list forces users to remember text that goes off the screen.

[H1-6 Clearly marked exits] [Severity 4]

- Clicking on a current event loads a new page, but from that new page it is not immediately obvious how to return to the Current Events main page. Further exploration revealed a small "Current Events" link in the middle of the right column, but there needs to be a more structured navigation framework.