Redesigning a Website:

A Practice in Interface Analysis, Prototyping, and Responsive Web Design

For this capstone, I extended the Responsive Redesign assignment with substantial design and development components. The objective and process of the assignment were to choose one page of a website to analyze based on usability/accessibility standards, redesign the webpage following design principles learned in the course, implement wireframes and prototypes of the page, and then finally build and deploy the redesigned version of this webpage.

The design of this project was extended by paying attention to the simplicity and efficient use of space on the original website. Ensuring that careful thought was put into the design and user experience of the website. Several sketches and simple hand-drawn wireframes were used to explore and contrast different layouts and prioritize certain aspects of the user experience. The critical focus for user experience was its layout’s responsiveness, where any page’s display is shown nicely on any sized device. Many different styling rules were implemented with numerous media queries. It was later tested on several browsers and different screen widths and devices. A primary concern here was surrounding the display of the navbar in mobile view, where a hamburger menu icon shows up to toggle the display of said navbar. This collapsing navbar feature saves on space and complexity for each page. It was also important to provide the user with buttons and collapsible lists that were responsive, as seen on the “Reports,” “Letters,” and “Subsidiaries” pages. Other details that were changed to save on space include font size and line spacing.
The development of this project was extended by going beyond the original requirement of the Responsive Redesign assignment of just redesigning one page. This project went from embodying elements of a responsive redesign to being a prominent example of it. The Berkshire Hathaway website, as redesigned in this project, could be a fully functional standalone website for the company. It incorporates company data from the past five years and even goes as far as to display working links to reports and subsidiary company websites. This was mainly done by building on top of the CSS already implemented for the original assignment.

This work resulted in a clean, dynamic, and responsive webpage that is fully functional and loaded with recent company data from Berkshire Hathaway. The site is intuitive and learnable, as the conceptual model has been extended to consider a broader range of user-centric design elements and principles.

This is a link to the result of this capstone work.

This is a link to the original assignment submission.

Usability/Accessibility Issues with Original Webpage
Figure 1: Actual Berkshire Hathaway Landing Page

<table>
<thead>
<tr>
<th>Usability Guideline</th>
<th>Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usability</td>
<td>As a landing page, this page is actually reasonably usable. It’s main goal is to provide links to other pages that contain information about the company. It does that very well because it’s very simple.</td>
</tr>
<tr>
<td>Learnability</td>
<td>This page isn’t very learnable, since many of the links have ambiguous titles that don’t explain what they link to very well.</td>
</tr>
<tr>
<td>Memorability</td>
<td>This page is memorable, but only for how bare bones it is. Otherwise, it is not memorable. The plain style and use of hyperlinks makes it hard for a user to distinguish the steps they take on the website to get to any other given page.</td>
</tr>
<tr>
<td>Conceptual Model</td>
<td>The conceptual model of this website is as straightforward as can be, but this does not mean it is good. In fact, it proves that the website was poorly designed and difficult to navigate as a result.</td>
</tr>
</tbody>
</table>

Figure 2: Usability Issues

Wireframes and UI Style Guide
Figure 3: Responsive Low Fidelity Wireframes

Figure 4: UI Style Guide
Figure 5: Desktop High Fidelity Wireframe
"Price is what you pay, value is what you get."
- Warren Buffett

Figure 6: Homepage

Figure 7: Subsidiary Page
Figure 8: Reports Page as Seen on iPhone 12 Pro
Figure 9: Letters Page as Seen on iPad Mini