ACCESSIBILITY COMMON DEVELOPER MISTAKES

Web Council Meeting, May 11\textsuperscript{th} 2011

1. Too Low Contrast

The contrast between text and background is a major contributing factor to the readability of a website. This particularly applies to people with color blindness or visual impairments, but is also an important issue for anybody using a device in less than optimal situations — browsing with your mobile device in bright sunlight or sitting next to the window in a coffee shop.

Color contrast is expressed as a ratio indicating the relative luminosity between the foreground and background colors. The possible range is from 21:1 as high contrast down to 1:1, when the foreground and background colors are the same. For normal-sized print, 5:1 is considered acceptable.

In this example on 20X200, the contrast ratio between the navigation text and its background is 1.57:1.
2. Color-Driven Instructions

The most common example for this problem is in the simple text "Fields marked in red are required." If you don't believe me, do a quick search for that phrase, and you'll find many examples of this exact phrase in use on live websites. For any visitor either on a device that does not render color — such as the Kindle browser — or who is unable to recognize the color red, this instruction is entirely useless. Add in any other visual limitation, and it's probable that your customer won't even be able to distinguish whether there are different colors of text on the page. Here are two examples that require users to see the color red.

Detail of color-driven (red) instructions on Lacrosse Magazine's order form.

This medical registration form requires users to identify red boxes and text.
3. Inappropriate Alt Attributes

Alt attributes are a critical element of website accessibility, since the appropriate use of an alt attribute allows users of screen readers the ability to get the specific content of that image. However, inappropriate use of the alt attribute can result in an experience that is as bad as or worse than the failure to use it.

Generally speaking, these rules will help you with alt-attribute decisions:

- Any decorative image, such as a spacing graphic or ornamental figure, should have an alt attribute with an empty value: alt=".
- Any image containing text should have an alt attribute containing that text.
- Any content image may have a short, accurate, descriptive alt attribute, but can be considered decorative.
- Any complex image, such as an image containing a graph, should have an associated long description.
- If you can't see the image, but can read the text, does the alt attribute help you?

Hinding's logo image alt attribute is 'Image.' It should be 'Hinding Company Heating and Air Since 1936.'
4. Background Colors that Don't Contrast Images Against Text

The use of images for backgrounds can lead to some unfortunate consequences when images aren't rendered. With the popularity of sophisticated smart-phones and tablets with full CSS support, this may not seem like a huge issue; but it does have significant consequences for anyone still on dial-up access (25 percent of rural households, according to Internet World Stats), visitors using a Windows High Contrast view, or just trying to save money while browsing abroad. If the background color is not selected to back up the color of the image, a lack of images can make the foreground content unreadable.

Backup DSLReports.com with backup images on.

Backup DSLReports.com with backup images off.
5. Lack of Keyboard Accessibility

Screen reader users always browse without a mouse or any form of pointing device, as do many people with mobility disabilities caused by diseases such as Parkinson's or Multiple Sclerosis. This is due to an inability to successfully manage small motor functions. Both sight-impaired and sighted users can be stymied by a lack of keyboard accessibility. For screen-reader users, it's more likely to be shown in functions that simply cannot be activated without a mouse. For sighted users, it's commonly an absence of styling on links when they receive keyboard focus, which makes it very difficult, if not impossible, for them to know where they are on the page.

Users can be stymied by a lack of keyboard accessibility as in this example of a mouse-driven menu on WildPlanet.

The site has a faint contrast for: focus styling, matching the: hover styling, and a vivid contrast for the "Add to Cart" button when navigating by keyboard. However, when visitors using keyboard navigation tabs into any Quantity field, they cannot tab on to the next field or submit the form to add the item to cart. They are simply locked in place in that field.
6. Flexibility with Different Text Sizes

Website users with low vision many keep their font-size magnified, for easier reading. Many websites fall apart in unfortunate ways if the font is enlarged, unfortunately. Among the possible problems this can cause are overlapping text, which becomes unreadable, or text that disappears from the page when it overflows the layout.

In this example, the elements in the sidebar have overlapped, making them unreadable.
7. "Click Here"

The "Click here" problem doesn't refer to that text specifically. The problem lies with any text that is repeated on a page using a generic text to target a variety of different pages. One powerful tool for accessible speedy navigation is to jump from link to link on a page, scanning the topics of those links as you go. When this simply provides a list of links with no unique text and no unique context, the visitor gains no information from this. Non-visual users don't have the easy option of scanning a page to see the context of a link; navigation is very linear. Using unique link text to visit unique pages is of great benefit to non-visual customers.

<table>
<thead>
<tr>
<th>Resident Licenses</th>
<th>Fee</th>
<th>DNR License Agents</th>
<th>DNR (St. Paul)</th>
<th>Phone Sales</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angling - 24-hour</td>
<td>$ 8.50</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - combination (husband/wife) (r)</td>
<td>$ 25.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - dark house rental (r)</td>
<td>$ 26.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - dark house shelter (r)</td>
<td>$ 12.50</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - individual (r)</td>
<td>$ 17.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - military (r)</td>
<td>$ 0.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - spearing from dark house (r)</td>
<td>$ 18.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling - white tulibee herring (r)</td>
<td>$ 10.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling Dark House 3 Year Rental (r)</td>
<td>$ 78.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Angling Dark House 3 Year</td>
<td>$ 34.50</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Conservation combo angling (r)</td>
<td>$ 17.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Conservation individual angling (r)</td>
<td>$ 11.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
<tr>
<td>Disability permit - angling/spearing (r)</td>
<td>$ 0.00</td>
<td>go</td>
<td>go</td>
<td>go</td>
<td>go</td>
</tr>
</tbody>
</table>

Minnesota DNR's fishing license table has 149 occurrences of an image labeled "go" in tiny print, with the alt attribute text of "yes."
8. CAPTCHAs

The compromise between spam prevention and accessibility is always a problem. However, there are much better tools for spam prevention than the CAPTCHA (Completely Automated Public Turing test to tell Computers and Humans Apart). A little bit a content analysis can go a very long way in removing spam, without having any negative impact on visitors with disabilities. Using a CAPTCHA creates significant barriers for customers with disabilities.
9. Text that Looks Like Links; Links that Look Like Text

There's a well-established expectation that linked text is underlined. As a result, any underlined text will receive attention on your website as if it were a link. Similarly, if your links are not underlined, or do not in other ways appear to be links; they will frequently be overlooked, which gives ample opportunity to miss a sales opportunity.
10. Links that Open Unexpectedly in New Windows

There are sound reasons to open links in new windows. Those reasons include avoiding interrupting a process (such as when a visitor is completing a registration, and a link provides supplemental information) or providing access to a document, such as a PDF or Word document. But the most common argument I hear is a desire to keep a user from leaving your website.

This is a fallacious argument. What opening a link in a new window actually guarantees is that your website will stay open in the browser; it does not in any way ensure that your visitor will ever come back to it. In fact, users with a lower skill level or those operating a browser with cognitive disabilities, it's just as likely to prevent them from returning to your site as it is to keep them on your site. The most frequently used button in a browser is "Back." Opening a new window breaks this functionality. Average website visitors will have no difficulty either opening a link in a new window on their own or using the 'Back' button; but users with less experience may struggle in dealing with new windows, though they would have had no difficulty using the 'Back' button.

Other common mistakes:

1. Main navigation links go directly to PDF's
2. Missing or inappropriate page titles
3. Acronym & Abbreviation Misuse
4. Dependencies on scripts or plugins for navigation
5. Do not use RANDOM characters to separate links.

** Please test your website with a screen reader.