The Challenges of Accessibility

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The CDRS team has been excited about the opportunities for innovation that Dangerous Citizens provides, but we have also been concerned with universal usability, or making sure that all of the content on the site is accessible to people with different physical and cognitive requirements. Our collaborative planning and evaluation process has been essential in developing a site that meets both high usability standards and many of the technical standards for accessibility. On the Web, accessibility means making content available to all users, whether their sight, hearing, movement, or cognition is impaired, and whether they navigate the Web using a traditional mouse, only a keyboard, or an assistive device such as a screen reader. Technical standards for accessibility are provided by the U.S. government in Section 508 and by the World Wide Web Consortium, a Web standards body, in their Web Content Accessibility Guidelines.

We have faced some inherent constraints on the level of accessibility we can provide; as the text itself is an academic work that was not written specifically for a wider Internet audience, its language is not accessible to users at all levels of reading ability. We have concentrated our accessibility efforts on matters of design and display options. For instance, we ensured sufficient contrast between text and background colors for low-vision users, and chose color combinations that would be discernible to color-blind users, using the Paciello Group’s Contrast Analyser. We also removed the word “Click” from the links that allow users to hide parerga content because that language does not apply to all users—not everybody uses a mouse that clicks. We provided a text-resizing widget to give users a quick way to make the site easier to read according to their visual needs. Trickiest was coming up with an accessible means of displaying and hiding the parerga content. The team developed image-based links featuring different icons to represent the different parerga content types. These icon buttons are large enough to be selected by users with varying motor abilities and have sufficient contrast with the site’s background color to be clearly visible to all visual users. The buttons are also accompanied by alternative text, which describes where the links lead for users of assistive devices but is not visible on the screen for other users.

To ensure that all users can access the site’s content, we have focused on writing standards-compliant markup. The group discussions and multiple iterations used in the Agile development process have also allowed us room to add or improve accessibility features over time.

—Merran Swartwood, Usability Researcher @ CDRS

Tags: accessibility, Agile, design, parerga, usability