

ENSURING ACCESSIBILITY AND SECTION 508 COMPLIANCE FOR THE RECOVERY.GOV WEBSITE (LAZAR ET AL, 2010)

This example first appeared in Chapter 14 as Box 14.1 of the fourth edition of Interaction Design: Beyond HCI. Newer material is included in the 5th edition but we have included this material on the website in case it is still useful to readers.

It is not included The American Recovery and Reinvestment Act (informally known as 'the Stimulus Bill') became law on February 17, 2009, with the intention of infusing \$787 billion into the US economy to create jobs and improve economic conditions. The Act established an independent board, the Recovery Accountability and Transparency Board, to oversee the spending and detect, mitigate, and minimize any waste, fraud, or abuse. The law required the Board to establish a website to provide the public with information on the progress of the recovery effort. A simple website was launched the day that the Act was signed into law, but one of the immediate goals of the Board was to create a more detailed website, with data, geospatial features, and Web 2.0 functionality, including data on every contract related to the Act. The goal was to provide political transparency at a scale not seen before in the US federal government so that citizens could see how money was being spent.

A major goal in the development of the Recovery.gov website was meeting the requirement that it be accessible to those with disabilities, such as perceptual (visual, hearing) and motor impairments. It had to comply with guidelines specified in Section 508 of the Rehabilitation Act (see the id-book.com website for details). At a broad level, three main approaches were used to ensure compliance:

- Usability testing with individual users, including those with perceptual and motor impairments.
- Routine testing for compliance with Section 508 of the Rehabilitation Act, done every 3 months, using screenreaders such as JAWS, and automated testing tools such as Watchfire.
- Providing an online feedback loop, listening to users, and rapidly responding to accessibility problems.

During development, ten 2-hour focus groups with users were convened in five cities. An expert panel was also convened with four interface design experts, and usability testing was performed, specifically involving 11 users with various impairments. Several weeks before the launch of Recovery.gov 2.0, the development team visited the Department of Defense Computer Accommodations Technology Evaluation Center (CAPTEC) to get hands-on experience with various assistive technology devices (such as head-pointing devices) which

otherwise would not be available to the Recovery Accountability and Transparency Board in their own offices.

Approaches were developed to meet each compliance standard, including situations where existing regulations don't provide clear guidance, such as with PDF files. A large number of PDF files are posted each month on Recovery.gov, and those files also undergo Section 508 compliance testing. The files undergo automated accessibility inspections using Adobe PDF accessibility tools, and if there are minor clarifications needed, the recovery.gov web managers make the changes; but if major changes are needed, the PDF file is returned to the agency generating the PDF file, along with the Adobe-generated accessibility report. The PDF file is not posted until it passes the Adobe automated accessibility evaluation. Furthermore, no new modules or features are added to the Recovery.gov site until they have been evaluated for accessibility using both expert evaluations and automated evaluations. Because of the large number of visitors to the Recovery.gov website (an estimated 1.5 million monthly visitors), ensuring accessible, usable interfaces is a high priority. The full case study is available on www.id-book.com. Since the original Act was passed, it has since been amended in 2013 so that it now includes aid victims of Hurricane Sandy, a particularly devastating hurricane that destroyed thousands of homes and businesses along the north east coast of the USA.

Reference

Jonathan Lazar, Heidi J. Feng, Harry Hochheiser (2010) *Research Methods in Human Computer Interaction*, John Wiley & Sons Ltd. Chichester, UK. (1st edition).