NIDRR Projects

Research in the New Millennium

Web Accessibility Initiative (WAI) - Phase II, *Massachusetts Institute of Technology* (H133A000500) led by Tim Berners-Lee. William Peterson, Project Officer.

Abstract: The project addresses newly emerging accessibility issues in the Web industry, and expands implementation of existing Web accessibility solutions. Activities include: (1) developing advanced versions of WAI guidelines and techniques to cover advanced Web technologies such as XML applications; (2) developing a superset of universal design guidelines by integrating device-accessibility issues in 25 or more World Wide Web Consortium (W3C) specifications; (3) documenting techniques for accessibility features of W3C specifications in appendices and example code; (4) expanding techniques for retrofitting and validating conformance with WAI guidelines; (5) developing resource packages for accessibility of E-Commerce and distance learning; (6) providing in-house technical assistance to industry on the design of accessible Web sites and software; (7) providing and monitoring a liaison to research and development projects that affect future Web accessibility; and (8) providing technical assistance to research projects to promote adoption of universal design approaches in development of new Web technologies. For tens of millions of Americans with visual, hearing, physical, or cognitive disabilities, Web accessibility provides the key to the information society: to the on-line commercial world, educational opportunity, employment opportunity, workplace communication, government services, recreation, and more.

Find out more at: http://www.w3.org/WAI

EEEEEK! Section 508 is in full effect! Webmasters and software designers are running to get up to speed on the latest Federal regulations. **RehabWire** for Summer 2001 highlights the accessibility of information technology and the policies in place to enforce an accessible, virtual world.

Information Technology Technical Assistance and Training Center (ITTATC), *Georgia Institute of Technology* (H133A000405) led by John Goldthwaite. William Peterson, Project Officer.

Abstract: This project promotes widespread use of accessible and useable electronic and information technology in the home, school, and workplace. It also promotes the benefits of universal design to technology manufacturers, product designers and engineers, technical writers, marketers, distributors, and purchasers of information technology. This collaboration of educators, researchers, and leaders in policy, industry, and disability implements strategies for information dissemination, training, and technical assistance on the interpretation and impact of Section 255 of the Telecommunication Act and Section 508 of the Rehabilitation Act. The Center works closely with lead federal regulatory agencies (the Federal Communications Commission, the Access Board, the Department of Justice, and the General Services Administration) to advance understanding and knowledge utilization of approaches to the requirements of Sections 255 and 508 through training and technical assistance activities.

Find out more at: http://www.ittatc.org

Rehabilitation Engineering Research Center on Information Technology Access, *University of Wisconsin/Madison* (H133E980008) led by Gregg C. Vanderheiden, PhD. William Peterson, Project Officer.

Abstract: This RERC improves access by individuals with all types, degrees, and combinations of disabilities to a wide range of technologies, including computers, ATMs, kiosks, point-of-sale devices and smartcards, home and pocket information appliances, Internet technologies, intranets, and 3-D and immersive environments. The program identifies strategies that can be used by industry to broaden the user base for their standard products, so individuals with as broad a range of abilities as possible are able to use standard products directly. Further, the Center targets specific compatibility and interconnection standards work to ensure that people who cannot use products directly are able to operate them using assistive technologies.

Find out more at: http://trace.wisc.edu/itrerc

What's available online?

ITTATC has Section 508 and Section 255 information including text and summary of regulations, FAQ's, tools, databases of accessibility solutions, and publications.

WAI has links to regulations and policies for the US, Europe, Australia, and Asia; full documentation of accessibility guidelines; a convenient checklist and a handy business card-sized guide to the top 10 accessibility tips; discussion groups and forums; training; evaluation tools; and conformance levels.

In addition to these NIDRR-funded initiatives, the **Federal IT Accessibility Initiative** (http://www.section508.gov) has laws and regulations, guidelines, publications, and a new accessibility training feature with self-paced lessons. As part of the program, GSA established the Accessibility Forum (http://www.accessibilityforum.org). The Forum is a "diverse set of stakeholders" brought together to work toward effective implementation of accessibility policies. The Forum's next meeting is September 19-21 at Gallaudet University's Kellogg Conference Center.

Selections from REHABDATA

(2001) **Dial independence**. *Exceptional Parent, 33*(5), p. 74-76. http://www.eparent.com. Accession Number: J41954.

Abstract: Article describing programs of the Verizon telephone company aimed at improving telecommunications accessibility for people with disabilities. Programs include: The LifeLine Equipment Distribution Program, which provides free assistive telecommunications devices to economically disadvantaged persons with disabilities; the Verizon Center for Customers with Disabilities, which provides information and services for customers with disabilities; the New York State TTY Loan Program, which puts TTY's into public libraries in New York so they can be borrowed by library card holders; and a program to put TTY's into public places in New York City. These programs are currently available only in New York or in New York and New England.

(2001) *User-friendly materials and alternate formats.* Southwest Educational Development Laboratory http://www.ncddr.org . Accession Number: O13957.

Abstract: Booklet on making the results of rehabilitation research accessible and user-friendly to a variety of audiences, including people with disabilities and people with little previous experience or background. Formats discussed include large print, audiotape, Braille, diskette, CD-ROM and DVD, video and descriptive video, captioning, and the Internet. The booklet also discusses translation into other languages, with a list of online translator and interpreter services, and ways to write so as to make information more understandable to a wider audience.

Davies, D. K., Stock, S. E., Wehmeyer, M. L. (2001) **Enhancing independent Internet access for individuals with mental retardation through use of a specialized web browser: A pilot study.** *Education and Training in Mental Retardation and Developmental Disabilities, 36*(1), p. 107-113. Accession Number: J41573.

Abstract: Article on the development and pilot testing of a multimedia web browser called Web Trek intended to make the Internet more accessible to individuals with mental retardation. In the pilot testing, 12 participants with mental retardation completed three Internet tasks (searching for Web sites, saving sites to a favorites list, and returning to a favorite site) using two web browsers, the Web Trek prototype and Microsoft Internet Explorer 4.0. Results showed that when using Web Trek participants were more independent (as measured by the number of prompts required for each step), made fewer mistakes, and were more likely to complete tasks. In addition, participants reported that they enjoyed using Web Trek and wanted to do it again. Factors that made Web Trek preferable are discussed, including reduced screen clutter and use of audio prompts, more graphics, and error minimization methodologies.

Gerber, E., Kirchner, C. (2001) **USABLE (Using Statistics About Blindness and Low vision Effectively) data report #7: Who's surfing? Internet access and computer use by visually impaired youths and adults.** *Journal of Visual Impairment and Blindness, 95*(3), p. 176-181. Accession Number: J41719.

Abstract: Article summarizing unpublished data from the Census Bureau's 1999 Survey of Income and Program Participation (SIPP) concerning access to the Internet and regular computer use by persons with "severe and moderate functional limitations in seeing." Results indicate that rates of access and regular use are much lower for persons with visual impairments than for those with no disabilities. Persons with severe visual impairments have lower rates of access and use than those with moderate limitations. However, employed persons age < 65 who have a visual impairment but no other disability are almost as likely as persons with no disability to use a computer at work. The authors conclude that lack of employment affects Internet access and computer use by persons with visual impairments more than the visual impairment itself.

The Top 10 Tips for Accessible Web Page Design:

10: Validate accessibility and mark-up using checklists, guidelines, and automated tools.

9: Make sure tables make sense when read across.

8: Use <noframes> and meaningful frame titles.

7: Provide alternative content for scripts and applets.

6: Summarize graphs and charts.

5: Use consistent page organization using markup and Cascading Style Sheets (CSS).

4: Use common sense links (don't just "click here").

3: Provide alternatives for any information conveyed through multimedia.

2: Use client-side image maps with text alternatives.

...and the #1 tip for accessible Web page design is

1: Provide alternative text for all images and animations.