

Web Accessibility for People with Cognitive Disabilities

Deborah Dahl, Ph.D.

Principal, Conversational Technologies

Member, W3C Cognitive Accessibility Task Force

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Web Accessibility

- Web accessibility for people with sensory and motor disabilities has been a long-time concern
 - W3C standards include ARIA and WCAG
- Web accessibility for people with cognitive disabilities is also important

Cognitive Disabilities

- Cognitive disabilities are very common
- Include dyslexia, dementia, age-related cognitive decline, Down Syndrome, aphasia, ADHD, autism, learning disabilities and dyscalculia

The benefits of the Web should be available to people with cognitive disabilities

World Wide Web Consortium
Design Principle
Web for All

Cognitive Functions

People with cognitive disabilities may have trouble performing some or all of these functions, or may be unable to perform them at all

- Language – reading, writing, speaking, listening
- Attention
- Learning
- Memory – working, short-term, long-term
- Reasoning and executive function – making decisions

Website characteristics that degrade cognitive accessibility

- Language disorders (aphasia, dyslexia, autism)
 - Complex language
 - Reliance on text for information
 - Captcha
- Attention disorders (ADHD, autism)
 - Cluttered web pages
 - Animation
 - Interruptions
- Memory and learning disorders
 - Invisible UI elements, special gestures
 - Flat design
 - Memory demands (deep menus)
 - Inconsistencies in icons, menus, etc.
 - Unclear or misleading link labels
- Time limits (many disorders)

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W3C Cognitive Accessibility Task Force

- Task force in the Web Accessibility Initiative
- 33 participants from 11 organizations
- Started in 2013
- Publications
- Cognitive Accessibility User Research
 - <http://www.w3.org/TR/coga-user-research/>
- More coming!
- Website
 - <http://www.w3.org/WAI/PF/cognitive-a11y-tf/>

Techniques for Cognitive Accessibility

- Techniques are aimed at making it easier for people with cognitive disabilities to use web
- Work on techniques in the task force is still early
- Some examples of general ideas
 - Use clear structure and writing style
 - Make it easy to undo mistakes
 - Provide enough time
 - Avoid distractions and interruptions



Search

Clear Helper Project Status

About

Clear Helper is a project intended to develop a Web site using best practices of accessibility for people with cognitive disabilities. The Web site will contain tutorials about using particular Web sites and/or features of them. The Web site is under development.

Web Site Features

Accessibility

The Clear Helper Web site will meet:

- the general accessibility standards set by the [World Wide Web Consortium WCAG 2.0](#); and
- the guidelines suggested by [WebAIM's Cognitive Web Accessibility Checklist](#).

Accessibility Features for People with Cognitive Disabilities

Initial design efforts will focus on:

- clear, simple language;
- a voice narration for every page;
- a consistent set of navigation icons; and
- presentation of tutorials in multiple formats (i.e., text, audio and video).

[Indexes of Cognitive Web Accessibility Resources](#)

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Recent Blog Posts

- [My Activities: Cognitive Web Accessibility](#)
- [Online Security & Privacy for People with Cognitive Disabilities: Challenges & Solutions](#)
- [Online Security & Privacy for People with Cognitive Disabilities, Part 1](#)
- [CAPTCHA, Cognitive Disabilities, v1 \(W3C Task Force\)](#)
- [Autism Gap Analysis \(W3C Task Force\)](#)
- [Gap Analyses for Cognitive Web Accessibility \(W3C Task Force\)](#)
- [Proposed Infrastructure For Automatic-Accessibility Personalization](#)
- [2014 Boston Accessibility Conference – May 10 – Register Now!](#)
- [New W3C Task Force for Cognitive Accessibility](#)
- [2013 Boston Accessibility Conference – September 28 – Register Now!](#)



Clear Helper Project

About

The Clear Helper Web site is not ready yet.

When it is, it will teach people how to use Web sites.

It will be as easy to use as it can be.

Making the Clear Helper Web Site Easy to Use

The Clear Helper Web site will have:

- sentences and words that are easy to understand;
- a choice to have the text of each page read out loud in a voice;
- a menu that uses big buttons; and
- three choices to learn in the easiest way: just text; text and pictures; or videos.

Help from People with Disabilities

From the start of this project, people with disabilities are being asked:

- what they find hard about using the Web;
- what they would like to learn about using the Web; and
- if they would like to help make the Clear Helper Web site easy to use.

Project Creator

John Rochford is making the Web site.

He works for The University of Massachusetts Medical School.

See more [about John](#).

Hacking ideas for cognitive accessibility

- Assistive technology – something a user could use to improve cognitive accessibility of websites
- Developer tools
 - cognitive accessibility evaluation
- Responsive design for cognitive accessibility
 - Style sheets?