

Accessing the Web

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Three steps forward Two steps back?

One in five Web users are classified as requiring some sort of Assistive Technology (AT) to access the Web. ATs are their interface to computers and the Web.

Some may be severely disabled; these users may be blind, deaf or have motor problems. Others may be less-severely disadvantaged, having visual impairment or dyslexia. However, they all rely upon the web. It delivers greater independence, social interactions and provides employment potential.

This represents a significant responsibility for web developers and content providers; creating inaccessible experiences excludes millions of people.

Traditionally AT has played a catch-up game with trends and practises in modern web design. Hence a six-month void between design practises and accessibility has existed throughout the life of the Web.

As online multimedia technologies become increasingly complex, the void is growing.

Web 2.0 services brought several high-profile cases into the spotlight. Their hallmark of dynamically loading content within the page (known as AJAX) excluded many AT users.

At the time, many AT products were not designed to expect content to change within the page, hence these services were unusable. Similar problems exist with Rich Internet Applications (RIAs), which make use of non-standard form controls.

The task is to bridge the gap between modern, innovative application design, and the AT.

The Accessible Rich Internet Applications (ARIA) standard is achieving this particularly well. ARIA introduces supplemental markup that communicates semantic information about websites and RIAs to AT software, thus solving the problem.

Ironically, while most major browsers and ATs implemented ARIA support in under 18 months, many users remain ignorant of the standard and its benefits.



Some users are reluctant to upgrade their AT to a version with ARIA support. This is understandable; it would require them to re-learn a key interface to their computer.

ARIA is more flexible than previous measures made for accessibility, and hence should preserve access for AT users for many years. At the time ARIA was ratified, AT users had been waiting about three years; the onus is now on content providers to implement the standard.

This demonstrates how the gap has grown, but has it been worth the wait?

1990

HyperText is constrained to text and very basic graphics. Its simplicity makes it accessible.

1995

Table and internationalisation features emerge. AT must adapt to interpret these.

1996

CSS is ratified, which promotes separation of content from design information. This benefits AT, as CSS pages can be “linearised” into a legible form.

1999

The Disability Discrimination Act requires that websites be reasonably accessible.

The W3C publishes its Web Content Accessibility Guidelines, which become a benchmark of service.

2004-2005

Web 2.0 services emerge. They use AJAX to dynamically load and manipulate content on-the-fly. Rich Internet Applications begin to appear.

2009

The WAI-ARIA standard exposes rich controls in RIAs to AT users, three years after RIAs appeared.

Source Text

A Review of Web Accessibility, Russell Newman, 2010.

See Also

Enabling an Accessible Web 2.0, Becky Gibson (IBM), 2007.