



## ODF's Benchmark for Accessibility

To meet the needs of persons with disabilities, governments should demand nothing less in OOXML than what the existing ODF standard delivers.

Ensuring that web content is accessible to persons with disabilities is not only the right thing to do, but the law in many countries. Many governments require the use of a standard format in official documents and records. The accessibility of an ISO-approved format will have clear implications for persons with disabilities, as access to educational materials, government services, records, opportunities, participation and representation is at stake.

There are “grave issues with respect to the accessibility of Office Open XML as a format and potential standard that should preclude its adoption at present,” according to Jutta Treviranus, Director of the Adaptive Technology Resource Centre, and Dr. Stephen A. Hockema, faculty member of Information Studies at the University of Toronto, who authored a paper, “Accessibility Issues with Open XML.”<sup>1</sup> Many National Bodies, including Canada and New Zealand, noted OOXML deficiencies with regard to accessibility that need to be resolved before OOXML can be approved as an international standard.

- **OOXML does not satisfy Web Content Accessibility Guidelines v1.0.** The authors of the University of Toronto study conclude that in almost all of the cited cases, the checkpoints in WCAG v1.0 are not satisfied, despite Microsoft's amended claims to the contrary.
- **OOXML fails to offer affordable solutions, which is most critical when it comes to citizens having access to government documents.** Effective solutions for the blind to access Microsoft Office on Windows involves purchasing a "screen reader" (in the range of \$600-\$1,200 in the U.S. and €3,000 in Belgium for JAWS Professional). Through the use of any one of several free and open source operating systems (e.g., Ubuntu Linux, Fedora Linux, Sun OpenSolaris), citizens with disabilities such as blindness have access to ODF files via the free and open source OpenOffice.org office suite, with one of several free and open source assistive technologies. Many blind users today are very effective in their work environments using this free combination to create and review ODF files. This cannot be said of OOXML.
- **OOXML's failure to reuse existing open standards that impact accessibility increases the burden on assistive technology developers, who must now decipher and support alternative ways of doing similar things.** These open standards (e.g., XForms, SVG, Xlinks, MathML), which were developed with accessibility concerns in mind, enable the representation of many types of content in addition to text, such as links, form fields and controls, equations, graphics (for drawings, clip art, images, graphs, etc.), and other embedded multimedia for audio and video (especially in the context of presentation documents). OOXML bypassed these accessibility-vetted approaches in favor of its own approaches, including some based on proprietary Microsoft formats.

1 [http://atrc.utoronto.ca/index.php?option=com\\_content&sectionid=14&task=view&hidemainmenu=1&id=371](http://atrc.utoronto.ca/index.php?option=com_content&sectionid=14&task=view&hidemainmenu=1&id=371)

- > **OOXML's length makes it very difficult to interface with assistive technologies that implement OOXML's features.** While Microsoft claims that many of these features are optional (deprecated), assistive technologies must be compatible with all possible features that may be used to create documents, as an individual with a disability may encounter the feature and the assistive technology must be capable of appropriately processing it.
- > **During OOXML's development, there was little or no consultation with the disability community or developers of assistive technologies.** There was no public call for participation or commentary with respect to accessibility issues, nor is there a reference to such a process in the available documentation. Leading research centers in the field of accessibility have not been consulted.

ODF established the high water mark for document formats, providing the highest existing level of support for persons with disabilities.

- > **Experts reviewed the entire ODF specification using the Web Content Accessibility Guidelines v1.0 and several other metrics, setting the bar for accessibility for document formats.** In evaluating ODF against WCAG v.1.0 and multiplatform accessibility API capability, several accessibility issues were discovered by the OASIS ODF Accessibility Subcommittee in its public, peer-review of ODF v1.0 and subsequently fixed in ODF v1.1. This is the most in-depth accessibility review of any document file format specification to date.
- > **ODF is suitable for the creation of DAISY format digital talking books.** The OASIS ODF Accessibility Subcommittee ensured with the OASIS adoption of ODF v1.1 the suitability of ODF for the creation of DAISY format digital talking books for people with any number of physical or cognitive impairments and the creation of braille documents for the blind. Subsequent support of ODF v1.1 in the leading braille transcription application and review by DAISY transcription engineers have validated ODF v1.1 as an excellent basis for braille production.
- > **ODF guidelines describe what implementers must do to meet the needs of persons with disabilities.** The ODF v1.1 Accessibility Guidelines Version 1.0, created by the OASIS ODF Accessibility Subcommittee, have been approved by the OASIS ODF Technical Committee. The guidelines describe what an ODF v1.1 implementation must do so that users with disabilities are equally able to read, create, and edit documents.
- > **Persons with disabilities and accessibility experts are actively involved in ODF's ongoing development.** Involving disability experts and people with disabilities in standards development is a principle articulated by the European Union, the Royal National Institute of the Blind, and many governments. Individuals with disabilities provided input and peer-reviewed ODF v1.1.

**Governments should demand that digital documents be accessible to all. A comprehensive accessibility analysis of OOXML by industry is needed. Until completed and shortcomings addressed, OOXML remains an “inaccessible document format and not suitable for international standardization nor widespread adoption.”<sup>2</sup>**

<sup>2</sup> [http://atrc.utoronto.ca/index.php?option=com\\_content&sectionid=14&task=view&hidemainmenu=1&id=371](http://atrc.utoronto.ca/index.php?option=com_content&sectionid=14&task=view&hidemainmenu=1&id=371)