

## Web Accessibility – It's not Magic, it's Art

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Developers are often known to be magicians who cast spells over their systems and make things happen. Despite all magic, successful projects are more often a result of informed planning than of random sorcery. As the Web continues to evolve and mature to become an increasingly fundamental media of the information society, the need for knowledge and expertise in the discipline of Web accessibility becomes increasingly crucial to ensure equal participation for people with disabilities. New technologies facilitate the production of highly dynamic and interactive Web applications; they provide solutions to some of the existing barriers but also pose new challenges. Web developers need to have a good understanding of Web technologies, of the accessibility requirements of people with disabilities, and how to effectively combine the two in order to be able to provide esthetic and functional Web sites.

Web accessibility standards have an important role to play; they provide a common understanding for the requirements of people with disabilities and promote an enlarged market for stakeholders such as developers and tool producers. Harmonized standards are therefore essential for sharing knowledge and building capacity, and to accelerate the development of accessible content and authoring software. For these reasons, the W3C Web Accessibility Initiative (WAI) has developed a set of internationally recognized and adopted guidelines for Web accessibility. The Web Content Accessibility Guidelines (WCAG) provides specific criteria that define accessible Web content. The Authoring Tool Accessibility Guidelines (ATAG) aims at developers of software that generates Web content including editing tools and content management systems. And the User Agent Accessibility Guidelines (UAAG) addresses the developers of browsers and media players to ensure accessibility of these tools, and their compatibility with assistive technologies (such as screen readers or single switch devices) which some people with disabilities use to interact with the Web.

Applying the Web accessibility standards effectively and efficiently is an art that can be learned. In fact, we are observing a gradual increase of awareness and expertise as well as support for accessibility features in authoring tools and user agents. However, training for the Web development team remains a key aspect for the successful implementation of accessibility features. This includes training for the user interface designers, the programmers, the content authors, as well as the project managers. Each member of the development team has a significant responsibility in contributing to the overall accessibility. For example, when content authors publish information on the Web, they need to be aware of accessibility requirements such as text descriptions for images. The layout of the information on the Web page is determined by the designer and also needs to provide accessibility features such as sufficient color contrast and navigation support. Also programmers need to address accessibility in the code of the Web page or on the server. Finally, Web project managers need to allocate sufficient resources to enable effective implementation of accessibility features.

The true art of Web accessibility is not so much in conforming to the guidelines but in implementing them effectively and efficiently. Conforming to the Web accessibility standards can be achieved in many ways but it is often particularly effective to consider the accessibility requirements of the end-users from the start rather than at the end of a project. This potentially saves a lot of time and effort fixing barriers that could have been easily avoided in the first place. It is also extremely effective to have a good understanding for how people with disabilities use the Web in order to avoid well meant but faulty or less optimal solutions. In short, the key to mastering the art of Web accessibility is by learning from users with disabilities, for example by involving them in the development process. This provides new insights and a better

understanding for the requirements behind the guideline provisions.