

Web Content Accessibility Guidelines: from 1.0 to 2.0

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ABSTRACT

This poster explains the changes introduced in the Web Content Accessibility Guidelines (WCAG) 2.0 from WCAG 1.0 and proposes a checklist for adapting existing websites. Finally, it describes the most common criticisms of the WCAG and places them in the context of its origin and initial aims.

Categories and Subject Descriptors

I.7.2 [Document and Text Processing]: Document Preparation – *markup languages, standards*

General Terms

Measurement, Standardization, Verification.

Keywords: WCAG 1.0; WCAG 2.0; accessibility regulations.

1. INTRODUCTION

The Web Content Accessibility Guidelines (WCAG) were created in 1995 by TRACE R&D Center to prepare a set of recommendations for making HTML pages viewed in web browsers more accessible to users with disabilities. The definitive version, was published by the World Wide Web Consortium (W3C) in May 1999.¹

Though the WCAG were initially created as recommendations, in many countries they have been incorporated in the legislation because information policy-makers found them to be a convenient tool for determining whether a Web site is accessible. The first country to do so was the USA, which included the guidelines in the Americans with Disabilities Act (ADA).² Other countries that have incorporated the WCAG in their legislation are Germany, Australia, Canada, Spain, France, India, Japan and the United Kingdom [4].

This change of orientation and importance gave the WCAG a greater profile, and the attempt to make a second version therefore received much attention from many sectors. The 2.0 version was finally published on 11th December 2008.³

¹ <http://www.w3.org/TR/WCAG10/>

² <http://www.ada.gov/>

³ <http://www.w3.org/TR/WCAG20/>

2. AN OVERVIEW OF WCAG 2.0

WCAG 2.0 is published with a great deal of supplementary documentation that make it far more educational, less ambiguous and more testable than WCAG 1.0. The former checkpoints have become success criteria and are based on four principles (Perceivable, Operable, Understandable and Robust). In WCAG 1.0 many points were so ambiguous that functionally deficient websites were able to comply with the letter of the accessibility standards, whilst infringing its spirit.

WCAG 2.0 is not tied to any specific technology and leaves a wide margin for future technologies. Furthermore, the concept of the Web site is extended to all types of virtual communication, all types of content or pages that are generated dynamically and all interactive multimedia content.

WCAG 2.0 is also more usability-oriented. For example, it includes some of the Research-based web design & usability guidelines [5] and significant changes have been introduced to allow the user to control the interface (e.g. the time of reproduction of multimedia content). WCAG 2.0 covers more types of disability than version 1.0, there are several success criteria and related techniques that consider the problem of users with low vision—a group that is practically ignored in version 1.0—and users with reduced mobility; however, it still fails to deal decisively with aural pages and the problems of older individuals.

3. WCAG 1.0 and 2.0 face to face

New points are covered by WCAG 2.0:

- Incorporates the concept of the user adjusting the timing of viewing or reading Web site content.
- Stresses the importance of identifying and describing any element whose meaning, position or location is transmitted non-textually.
- Provides specific details of how to create accessible alternatives for multimedia.
- Deals with errors arising from incorrect input of data by the user. This guideline is of vital importance for Web 2.0 webs, for electronic administration, and for e-commerce.
- Establishes that users of assistive technologies must be able to activate, modify and read any type of interface component.

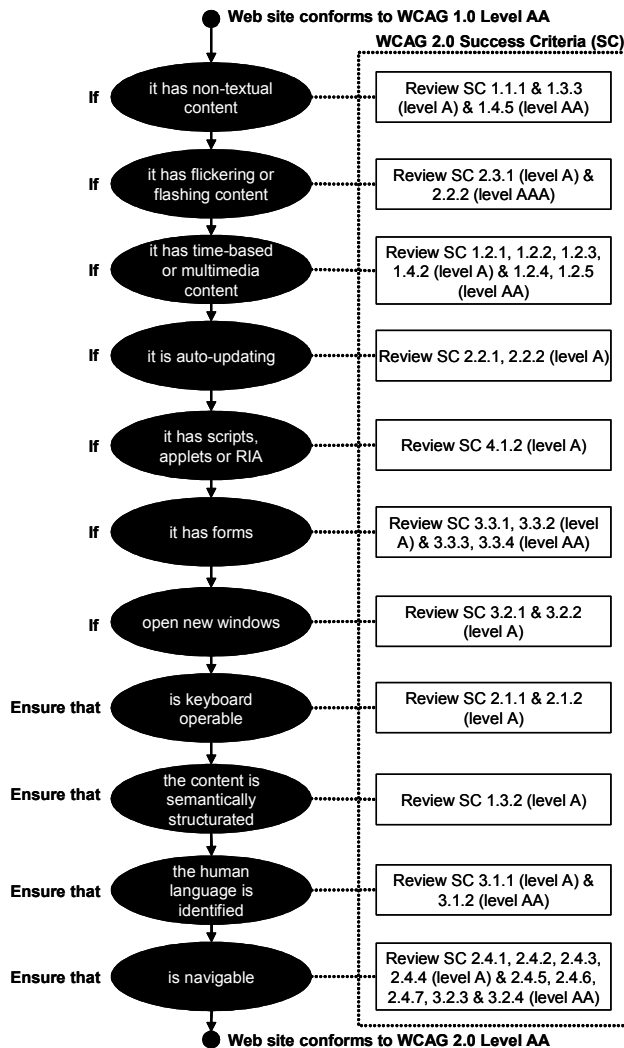


Figure 1. Flow chart for adapting a WCAG 1.0 Level AA Web site to WCAG 2.0 Level AA.

- Introduces navigability as an essential element of web accessibility. This is one of the best examples in which WCAG 2.0 incorporates general principles of usability, recognizing the link between usability and accessibility.
- Stresses the importance of the semantic structure of content (through headers, lists, etc.) in order to help users to understand the structure of the Web page and to locate the content that interests them more easily.

There are also many changes in the level of priority given to existing checkpoints.

4. HOW TO MIGRATE FROM WCAG 1.0 TO 2.0

Figure 1 shows a flow chart that may help Web site developers and webmasters who wish to make an initial assessment of the cost and effort involved in attaining Level AA of WCAG 2.0. It is

intended as an initial guide, but in order to ensure full compliance site managers must check all the guidelines thoroughly.

5. CONCLUSIONS: BEYOND WCAG

Because of their wide dissemination, the WCAG have often been criticized by experts in usability and human-computer interaction [1,3] and by associations of persons with disabilities. Four main criticisms have been made:

- They are not based on a statistically validated research of users.
- They do not deal with the needs of persons with cognitive disabilities and the elderly.
- They are not comprehensible for a typical webmaster
- They encourage webmasters to seek easy compliance rather than real accessibility.

In our view most of these criticisms are the result of the change of direction in WCAG, which was not foreseen in its initial design. WCAG must be judged in the context of the WAI initiative, which establishes other regulations that affect browsers (user agents) and authoring tools. However, if a giant like Microsoft fails to comply with the regulations in Internet Explorer, Microsoft Frontpage creates invalid code, content management systems as widespread as Vignette fail to facilitate the monitoring of accessibility guidelines, and the new tools of participation in Web 2.0 fail to create accessible content, what chance do the W3C or governments have of enforcing the rules?

Due to their definition and form, the WCAG can only be a starting point on the path towards accessibility. Real accessibility can only be achieved through the observation of users and a thorough knowledge of their needs [2].

6. REFERENCES

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