

Web Accessibility Guidelines: the Debate over Enforcement

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Abstract

The present paper focuses on addressing the controversial issue of web content accessibility guidelines enforcement. In doing so, it poses four basic questions concerning web content accessibility: a) What is today's situation concerning the implementation (or not) of web content accessibility guidelines? b) What is the current situation concerning the enforcement of web content accessibility guidelines or other relative legislation? c) What are the arguments in favor of such enforcement and what are the arguments against it? And, most importantly, d) is the enforcement of web content accessibility guidelines adequately justified and could there be a compromise –a way out of the debate? Through the above discussion, I will be attempting to reach certain conclusions and to provide an overview of the challenges lying ahead.

Keywords

Accessibility, web regulation, disabilities, web standards, hypertext authoring.

1. Web Accessibility: Definition and History

Web accessibility refers to “*the ease of use of information and communication technologies (ICTs), such as the Internet, by people with disabilities*” [World Health Organization, 2010]. When sites are correctly designed, developed and edited, all users can understand, interact with and contribute to the web. Based on this fundamental principle, Tim Berners-Lee, an MIT professor credited with inventing the World Wide Web in early ‘90s, formed, in 1994, the World Wide Web Consortium; a body responsible for coordinating the development of web standards. Its declared aim was actually to create standards to improve the quality of the web.

In the same year, the first meeting of the W3C Advisory Committee took place. Its aim was stated as follows:

“The World Wide Web Consortium (W3C) develops interoperable technologies (specifications, guidelines, software, and tools) to lead the web to its full potential.” [World Wide Web Consortium, 1994]. The World Wide Web Consortium decided that its standards should be based on royalty-free technology, so that they could be freely and easily adopted by anyone. Currently the W3C has 333 member organizations from over 30 countries [World Wide Web Consortium, 2010].

Another landmark in the very recent history of web accessibility is 1997, the year that the W3C introduced the Web Accessibility Initiative (WAI). The WAI is a W3C group responsible for developing guidelines which will ensure web resources are widely accessible.

Its aim was to address the question of how to expand access to the web for people with disabilities.

Two years later, the W3C published the first official Recommendation on accessibility issues, namely Web Content Accessibility Guidelines 1.0. [World Wide Web Consortium, 1999]. Its aim was to help web content developers understand how to make their content more accessible to a wide audience (not only disabled people).

In 2008 the W3C developed and published Web Accessibility Guidelines 2.0, an improved version of WCAG 1.0 which, too, became an official Recommendation [World Wide Web Consortium, 2008].

2. Web Content Accessibility Guidelines

2.1. Technical Description

Web Content Accessibility Guidelines are one of a series of guidelines published by the Web Accessibility Initiative with the purpose of providing advice for making web content accessible, primarily for disabled users, but also for all users and all user agents, including highly limited devices, like mobile phones. Other sets of WAI guidelines, like User Agent Accessibility Guidelines (UAAG) and Authoring Tools Accessibility Guidelines (ATAG) cover accessible user agents (browsers) and accessible authoring tools [World Wide Web Consortium, 1999].

In May of 1999, WAI published its first set of Web Content Accessibility Guidelines, WCAG 1.0. WCAG 1.0 was a step toward standardizing accessibility; as stated by the World Wide Web Consortium, WCAG 1.0 consists of the following 14 guidelines which entail 3 testable priority levels/success criteria:

14 guidelines

1. *Provide equivalent alternatives to auditory and visual content.*
2. *Don't rely on color alone.*
3. *Use markup and style sheets and do so properly.*
4. *Clarify natural language usage.*
5. *Create tables that transform gracefully.*
6. *Ensure that pages featuring new technologies transform gracefully.*
7. *Ensure user control of time-sensitive content changes.*
8. *Ensure direct accessibility of embedded user interfaces.*
9. *Design for device-independence.*
10. *Use interim solutions.*
11. *Use W3C technologies and guidelines.*
12. *Provide context and orientation information.*
13. *Provide clear navigation mechanisms.*
14. *Ensure that documents are clear and simple.*

3 Priority Levels

Priority 1: A web content developer must satisfy this checkpoint. Otherwise, one or more groups will find it impossible to access information in the document. Satisfying this checkpoint is a basic requirement for some groups to be able to use web documents.

Conformance to this level is described as A.

Priority 2: A web content developer should satisfy this checkpoint. Otherwise, one or more groups will find it difficult to access information in the document. Satisfying this checkpoint will remove significant barriers to accessing web documents.

Conformance to this level is described as AA or Double-A.

Priority 3: A web content developer may address this checkpoint. Otherwise, one or more groups will find it somewhat difficult to access information in the document. Satisfying this checkpoint will improve access to web documents.

Conformance to this level is described as AAA or Triple-A. [World Wide Web Consortium, 1999].

However, WCAG 1.0 underwent much criticism. First, it applied mostly to HTML format. Its critics wanted guidelines that could be applied to broader technologies and that could also be applied to future technologies. Furthermore, a number of WCAG 1.0 guidelines were considered out-of-date. [Piacello, 2000]. Some of the out-dated guidelines include:

- Provide equivalent text links for links within client-side image maps.
- Provide abbreviations for table header labels, if you use these.
- Use access keys (keyboard shortcuts) for important links.
- Don't use tables with more than one column for layout.
- Make sure form fields aren't empty by default.
- Ensure different links have non-link text between them.

WAI responded in 2006 with WCAG 2.0. This second version of WCAG was an attempt to make the guidelines more robust, measurable, and technology-independent. Unlike WCAG 1.0, WCAG 2.0 provides a list of common failures and offers some examples of common errors. The other major improvement in this document is that the examples provided are far more realistic. Furthermore, a number of new guidelines have been brought into WCAG 2.0. Some of these guidelines are totally new whereas others were hinted at, but not specifically stated, in WCAG 1.0. Some examples include:

- Providing text-based error messages for forms
- Ensure all pages have a descriptive title
- Background noise can be turned off [Moss, 2006].

This revised version of the accessibility guidelines begins with a set of four principles necessary for content to be accessible. Content must be perceivable, operable, understandable, and robust. Accompanying those principles are twelve guidelines which serve as general goals for developers. According to the WAI website, those four principles and twelve guidelines are:

Principle 1: Perceivable - Information and user interface components must be presentable to users in ways they can perceive.

Guideline 1.1 Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.

Guideline 1.2 Time-based Media: Provide alternatives for time-based media.

Guideline 1.3 Adaptable: Create content that can be presented in different ways (for example simpler layout) without losing information or structure.

Guideline 1.4 Distinguishable: Make it easier for users to see and hear content including separating foreground from background.

Principle 2: Operable - User interface components and navigation must be operable.

Guideline 2.1 Keyboard Accessible: Make all functionality available from a keyboard.

Guideline 2.2 Enough Time: Provide users enough time to read and use content.

Guideline 2.3 Seizures: Do not design content in a way that is known to cause seizures.

Guideline 2.4 Navigable: Provide ways to help users navigate, find content, and determine where they are.

Principle 3: Understandable - Information and the operation of user interface must be understandable.

Guideline 3.1 Readable: Make text content readable and understandable.

Guideline 3.2 Predictable: Make web pages appear and operate in predictable ways.

Guideline 3.3 Input Assistance: Help users avoid and correct mistakes.

Principle 4: Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

Guideline 4.1 Compatible: Maximize compatibility with current and future user agents, including assistive technologies. [Web Accessibility Initiative, 2008]

In order to ensure accessibility, each of these principles and guidelines must be in place. The guidelines are further broken down into criteria which provide specific instructions, and developers can test accessibility using these criteria. The WCAG 2.0 also provides a number of techniques, examples of proper content accommodations and common failures. WAI categorizes conformance into one of three levels with A being the lowest, AA the next higher, and AAA being the highest. However, it is possible for some websites to meet AAA criteria level, and still have accessibility issues [Clark, 2006], a fact that strengthens the argumentation against accessibility guidelines enforcement, as will be pointed out further on in this paper.

WCAG 2.0 promised to be the new touchstone. Its first installment, however, was again met with much critique. Comparing WCAG 1.0 and WCAG 2.0, some points had been simplified in 2.0 but in some cases the points in the second version were more complex than those in the first. The documents themselves were lengthy and wordy, filled with jargon and clearly not all too accessible [Moss, 2006]. Critics argued that WCAG 2.0 was very difficult to comply with and that it did not even include the most rudimentary demands of valid HTML. Those remarks raised doubt as to whether WCAG 2.0 could actually achieve its primary function – improving web accessibility by providing clear, practical (i.e. real-world), and achievable standards for creating websites and content [Sundell, 2006]; as will be discussed in more detail later on, such criticism adds a rather big arrow, so to speak, in the quiver of those opposing the enforcement of accessibility guidelines.

2.2. Basic Principles-Directions

As the Web Accessibility Initiative notes, “*the web is an increasingly important resource in many aspects of life; education, employment, government, commerce, health care, recreation and more.*” [Web Accessibility Initiative, 1994]. Recognizing that disabled people have a right to participate in all walks of life and the importance of accessibility to the cultural environment and to information and communication, the UN Convention on The Rights of Persons with Disabilities provides a recognized international standard for disabled people's human rights. 82 countries signed the convention on the 30th of March 2007. Since then, nearly 140 more countries have signed it, with almost 60 having ratified [United Nations, 2007].

Moreover, the web is essentially a place of interaction, and especially for disabled people, the set-up of a particular website may prevent full interaction. Both accessibility and ability are usually taken for granted, but it would be worth considering the example of a website requiring the use of a mouse and how impossible a task that would be for someone with a physical disability limiting hand movement. Or maybe a website is not providing text in place of important images, so a person with low or no vision is not fully experiencing the content as intended. It is essential that the web be accessible in order to provide equal access and equal opportunity to people with disabilities. An accessible web can also help people with disabilities more actively participate in society [European Commission, 2010].

Both WCAG 1.0 and 2.0 were designed so that “*people with disabilities can perceive, understand, navigate, and interact with the web, and that they can contribute to the web*” [Web Accessibility Initiative]. This, in short, is the basic principle behind the creation of web

accessibility standards and the effort to disseminate those standards to web content developers and raise concern for accessibility issues in general.

3. Stakeholders-Beneficiaries

Crucial to the ongoing debate over enforcement of web accessibility guidelines is the question of who those guidelines actually concern, in other words, who benefits from the enhancement of web content access and the enforcement of standards on web content developers. As will be shown, accessibility guidelines compliance is in the advantage of a much wider audience than one might initially think.

It is a fact that around 10 per cent of the world's population, or 750 million people, live with a disability. They are the world's largest minority. This figure is increasing through population growth, medical advances and the ageing process, says the World Health Organization (WHO) [United Nations, 2010].

However, web accessibility is a requirement concerning not only congenitally disabled people, but also people operating under permanent or temporary constraints, in general (physical constraints or special conditions). More specifically, users who benefit from accessibility guidelines compliance are not only people disabled at birth, but also those who have suffered some type of injury, people facing the problems of ageing and, finally, people without any form of disability whatsoever, i.e. users with different needs and preferences and people working under special constraints (e.g. slow Internet connection, noisy, over-illuminated or hands-free environment). All of the above, indicatively and not exclusively, might have physical, sensory cognitive disabilities or other constraints affecting web content access.

It is obvious, then, that everyone benefits from widespread awareness of web accessibility issues as well as the related good practices, since it is very likely that almost every one of us will someday have to face the predicaments of ageing or some other kind of constraint to free and easy web access.

4. Methods of Evaluation

Another important part of the argumentation concerning accessibility guidelines enforcement is related to the methods of evaluating compliance to web accessibility standards and their disputed adequacy and efficiency.

Web accessibility evaluation can be objective and automated with the use of specific tools that is, software programs or online services, like Bobby, RAMP, InFocus, A-Prompt, and LIFT which help find accessibility flaws in websites before the sites are publicly posted [Ivory, Mankoff and Le, 2003]; they can also be subjective and manual, involving human judgement (by specialists or, where necessary, with the participation of members of the specific group the web content is addressing). Evaluation of accessibility can also be semi-automated, i.e. combining the use of automatic evaluation tools and human assessment. Since accessibility tools can only partially check accessibility through automation, the combined use of automated tools and human judgement is the most reliable means of determining whether web content is accessible or not.

An important classification of automated software tools is their cost. There are a number of free evaluation tools, but there are also cases when specific needs have to be addressed and a commercially available tool may be preferable. The cost of an evaluation tool greatly depends on the accessibility knowledge of its user. Free tools often assume a greater understanding and spend less time educating their user. Commercially available tools are also more time-

saving –they do not have to check a site one page at a time, as it happens with free tools which have a more limited scope– and they often produce more detailed and specific reports. Furthermore, another classification of accessibility evaluation tools involves where these tools are meant to function. Some tools are available at a website where developers can evaluate the content of a page quickly and easily without downloading or installing an application. Other options include tools that are created as extensions to a browser, tools that function as part of a web authoring tool, whereas some tools require installation on a hard drive or server, like other pieces of software.

Finally, evaluation tools can be classified according to their repair functionality. Many tools can only perform an evaluation, but some tools are able to perform the evaluation and guide the repair process. This is a more common characteristic of commercially available tools. These often spend time educating their user and guiding both the evaluation and repair process [WebAim, 2010].

5. Arguments In Favor of WCAG Enforcement

5.1. People-Oriented Arguments

Supporters of the enforcement of web accessibility guidelines put forth a number of reasons why such enforcement is beneficial to all users. As we have already argued, web accessibility is/should be everyone's concern, since disabled people constitute a considerable part of the world's population and, at the same time, a mere part of a much wider audience, consisting of people having or being bound to have some kind of constraint to free and easy access to web content.

More specifically, as the World Health Organization estimates, between 750 million and 1 billion of the world's 6 billion people have a speech, vision, mobility, hearing or cognitive impairment and, as stated in the UN Convention on the Rights of Persons with Disabilities, web access is a basic human right, not a privilege. Having entered the knowledge society, in which new technologies constitute a sine qua non, and having acknowledged the socio-political value of the web, and most importantly, its power to promote democracy, we cannot but recognize everybody's right to free and easy web access. Obviously enough, however, compliance to the guidelines also affects people with temporary ailments, seniors and practically any user, since everyone benefits from a coherent, consistent and functional web [Giannakoulopoulos, 2005].

Moreover, enforcing accessibility guidelines is also a means for a state to provide active support to disabled people. For a modern state, Internet is nothing less than basic infrastructure. Its way of exhibiting real concern for its disabled citizens is enforcing legislation that guarantees the deployment of WCA guidelines. Enhancing web accessibility is a state responsibility and it cannot be left on pure chance or the good will of web content developers.

Enforcement also ensures that organizations which would otherwise ignore matters of web accessibility conform to the guidelines for fear of non-compliance sanctions. Experience has shown that if there is no legal obligation, there is probably no concern for accessibility issues, either. Social responsibility is just a lofty ideal and, simply put, the stick could prove far more effective than the carrot [Budd, 2005]

5.2. Output-Oriented Arguments

The argumentation in favor of web accessibility guidelines enforcement is also built on the assumption that enforcement achieves enhancement of web coherence/functionality and promotes its fundamental feature –universality (The Web is World Wide, after all). There is a pressing need for the internationalization of the web, so it is important to disseminate best

practices and standards related to managing web content. Standards enable interoperability of data and encourage coherence across the web.

Further, conformity to regulations and standards leads to uniformity (“write once, read everywhere”), i.e. reduces variety and prevents fragmentation, brought about by different approaches to accessibility issues. Standardization ensures measurable results, as well as consistency, credibility and comparability.

Finally, when accessibility guidelines are enforced, it is ensured that companies will address a wider audience and a whole new market; all people with disabilities [Clark, 2002].

6. Arguments Against WCAG Enforcement

6.1. People-Oriented Arguments

In the debate over WCAG enforcement, as the only means that could guarantee the enhancement of web accessibility, those opposing it emphasize the predominant role of the “agent” (web designer, developer or evaluator) in achieving accessibility, highlighting the importance of guidelines maintaining their assistive character; simply put, providing guidelines should merely mean “helping”. The very essence of the word “guideline” is irrelevant to laws, rules and regulations. Guidelines entail the idea of providing assistance to web content developers to achieve accessibility and not impose a certain way of achieving it. The guidelines should presume that developers are trying to make web content accessible and the latter should be given the freedom to choose (even choose wrong).

More importantly, education of developers, clients and suppliers could guarantee a widespread sensitivity to accessibility issues and, thus, should be prioritized and not underestimated. It follows, then, that a combination of good tools, improved practice and education are much better alternatives and should be given priority against a “regulations mindset”.

6.2. Output-Oriented Arguments

Seen from a purely practical viewpoint, WCAG enforcement seems to be rejected by some as almost idealistic. One cannot but pose the question of what exactly should be enforced, since there is an ongoing search of standards. The web content development industry is an immature one; guidelines are in development and their interpretation changes constantly. Further supporting the claim about the insufficiency of guidelines, some point to the absence of a common agreement among experts on web accessibility standards, which, it should be noted, are not developed via collaborative processes; each government could adopt a different technical standard based on new, conflicting guidelines. A survey in the UK and Oman has shown that no matter what tools are used or how logically the site is designed, if the designer has not fully understood the culture and the client’s market, the site is unlikely to succeed. [Beirekdar, Vanderdonckt & Noirhomme-Fraiture, 2002].

Apart from the “relativity” issue, though, there is always the huge problem of evaluation. Some semi-automated tools for measuring compliance with the guidelines are strongly criticized as insufficient; their output is unfriendly and they often flag nonexistent accessibility problems. Despite the advantages of automated evaluation, there is little evidence about their efficacy; specifically, if they result in better sites than those produced without tools and if they actually result in more accessible, usable web content. [Ivory, Mankoff & Le, 2003].

Further, there are several important aspects of accessible web page design than cannot yet be tested by automated tools, because they need human assessment. When subjective/manual evaluation comes into play, there is naturally ample room for dispute. More importantly, web content that does not meet the standards runs the risk of potential loss of business by being

“named and shamed” by pressure groups. Not surprisingly, evaluation could very easily run the risk of being manipulated to serve specific interests.

Further arguing against web content accessibility guidelines enforcement, those opposing it emphasize the importance of motivation as a more successful means of achieving the dissemination of web content accessibility standards and guidelines amongst web content developers. It is important to examine how the carrot could prove more effective than the stick, so to speak, as far as raising awareness of accessibility issues is concerned.

Interestingly, the fear of the strong arm of the law is not a strong motive. E.g. in Australia, the last sue against a major Organization (Maguire vs. Sydney Organizing Committee for the Olympic Games) was in 2000 [Australian Human Rights Commission, 2000]. Given that tools and guidelines are available to help in building accessible websites, and given that public policy generally supports web accessibility, research has shown that, surprisingly, many websites remain inaccessible [Travis, 2004].

As Thain points out, intrinsic motives could prove more effective and enforcement should be a last resort. Rather than berating web content developers for non-compliance with accessibility guidelines, they should be encouraged towards appreciating, first, the positive aspects/benefits of proper web authoring, namely:

- a) positive PR that comes from adopting a socially responsible attitude,
- b) ability to address a wider audience and
- c) the fact that accessible sites are inherently more search engine friendly.

At the same time, emphasis should also be put on the negative aspects of inaccessibility: turning away of a large number of potential users and bad publicity. Common experience has shown that people are more likely to share a negative experience of a website than a positive one. Consequently, denying access of web content even to a few people could generate negative PR [Thain, 2009].

7. Current Examples

7.1. National/International Policies

One of the first initiatives to promote accessibility was The United Nations World Program of Action (adopted in December 1982). The action program sought the equalization of opportunities for persons with disabilities and mandated that access to information and communication be a human right.

The Convention on the Rights of Persons with Disabilities and its Optional Protocol was adopted in December 2006. There were 82 signatories to the Convention, 44 signatories to the Optional Protocol, and one ratification of the Convention. It is now signed by 146 countries, ratified by 88.

On the fundamental issue of accessibility (Article 9), the Convention requires countries to identify and eliminate obstacles and barriers and ensure that persons with disabilities can access information and communications technologies [United Nations, 2006].

As far as Europe is concerned, it is important to note that the European Union co-funded the development of the W3C's Web Accessibility Guidelines. In December 2008, the European Commission published a Communication to the European Parliament, the Ministers' Council, the Economic and Social European Committee and the Lands' Committees:

"Towards an accessible information society". This communication states:

"As our society is evolving to an 'information society', we are becoming intrinsically more dependent on technology-based products and services in our daily lives. Yet poor e-accessibility means many Europeans with a disability are still unable to access the benefits of the information society.

The Commission considers it is now urgent to achieve a more coherent, common and effective approach to e-accessibility, in particular web accessibility, to hasten the advent of an accessible information society" [European Commission, 2008].

Further, the Treaty of Lisbon (2009) recognized that special attention should be given to disabled people and the fight against "info-exclusion". The European Commission has for itself carried out in the summer of 2009 an evaluation of the accessibility of its websites [European Commission, 2009].

The very recent developments in Finland, the first country in the world to make broadband a legal right for every citizen, should also be mentioned; by July 1st, 2010 all telecommunications companies are obliged to provide all residents with broadband lines. It is believed that up to 96% of the population are already online and that only about 4,000 homes still need connecting to comply with the law [Guardian, 2009].

In the case of the U.S.A., Section 508 was enacted in 1998 to eliminate barriers in information technology, to make available new opportunities for people with disabilities, and to encourage development of technologies that will help achieve these goals. Section 508 Standard of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794d), requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, Federal employees with disabilities have access and use of information and data that is comparable to the access and use by Federal employees who are not individuals with disabilities, unless an undue burden would be imposed on the agency [United States Government, 1998].

U.S. Section 508 was based on the W3C WCAG 1.0 version. Rather than adopt the WCAG standard directly, the U.S. created a separate legislation. The majority of web Section 508 rules are based on Priority Level 1 of the W3C WCAG but there are some rules that are additional to the WCAG guidelines [Mueller, 2003].

Noteworthy are also the cases of Australia and Canada, the former expanding WCAG conformance to commercial websites and the latter requiring WCAG conformance level AA which is a rather strict requirement.

7.2. Organizational Policies (business case)

Moving on to the current status as far as organizational policies are concerned, it is obvious that these days, as more and more facets of our lives become tied to Internet technologies, there is a widespread awareness of web access issues and those involved with the placement of information on the Internet cannot but consider the obstacles faced online by individuals with disabilities and design with those obstacles in mind. Across the globe, there are now public policies and laws protecting the rights of people with disabilities to access the content of the web.

The legal framework put in place by, as we have seen, several countries to ensure equal access to governmental services, has driven a movement towards making information technology products more accessible.

While Section 508, for instance, was written for federal agencies, it had a broad impact on companies that sell IT systems to the federal government. Section 508 applies to all IT systems purchased by the federal government, including PCs, software and office equipment such as copiers and fax machines. Information technology companies all over the world are also putting in a lot of effort to ensure that their products conform to necessary accessibility standards. Moreover, as Gokhale remarks, "*in areas where treaties do not exist, there is technical guidance that may be useful. One example is the Industry Code by Australian Banker's Association (ABA) and its Industry Standards for Accessibility of Electronic Banking*" [Gokhale, 2008].

8. Discussion

It is true that disability policies and laws have considerably evolved over last few decades to focus on rehabilitation, education and ‘mainstreaming’ of people with disabilities particularly with regard to access to technologies [Gokhale, 2008].

However, as pointed out earlier on in this paper, web accessibility does not concern disabled people only. It is a much wider issue and at a fundamental level affects all users; that given, it is important that web accessibility awareness is widespread. Moreover, it is strongly argued that in order to work on the internationalization of the web, it is important to raise awareness of best practices and standards related to managing web content. Standards are believed to enable interoperability of data, to enhance coherence across the web and maximize the potential for access to information. The enforcement of standards is, for some, the only way to guarantee adherence to web accessibility principles. No real result is yielded if there is no legal obligation. Reality, though, is quite disappointing as far as the results of guidelines enforcement are concerned. The laws don’t seem to be changing attitudes and behavior. Although the World Wide Web has become a predominant means of communicating and presenting information on a broad scale and to a wide audience, unfortunately website usability and accessibility continue to be a pressing problem. An estimated 90% of sites provide inadequate usability (Forrester Research 1999), and an estimated 66% of sites are inaccessible to users with disabilities (Jackson-Sanborn et al. 2002). There may be numerous assistive devices, such as screen readers and special keyboards, facilitating use of websites, but these devices may not improve a user’s ability to find information, purchase products and complete other tasks on sites. Moreover, many webmasters’ perceptions do not seem to be changing fast; they may support the concept of web accessibility, but they cite roadblocks to accessibility such as lack of time, lack of training, lack of managerial support, lack of client support, inadequate software tools, and confusing accessibility guidelines. [Lazar, Dudley-Sponaugle & Greenidge, 2004]. Does this attitude call for guidelines enforcement?

It would be worthwhile to provide an example of the limited powers of such enforcement:

In 2004, the Disability Rights Commission (DRC) in the UK examined 1,000 UK website home pages and measured how accessible they are to disabled people. To do so, the researchers used a standard set of guidelines from the W3C’s Web Accessibility Initiative (WCAG 1.0). Less than 1 in 5 websites met the most basic accessibility requirements (conformance level "A"), and just a very small fraction (0.2%) were WCAG “AA” compliant [Travis, 2004]. It remains to be answered whether these facts call for stronger enforcement, whether some web developer should be made an example of, or simply whether WCAG are poorly/ambiguously defined...

Admittedly, both versions of WAI WCAG have undergone much criticism owing to their moderate technical sufficiency. The required tasks aiming at accessibility were often seen as overwhelming and intimidating [Clark, 2006]. WAI guidelines have been criticized for the abundance of jargon, the complexity of the language used, the limited usability (e.g. the text was full of links and rather difficult to read) and WCAG 2.0, in particular, to avoid becoming obsolete, seems technology-neutral and rather vague.

However, does accessibility ultimately mean “standards compliance”? What is more important? Creating web content that is fully accessible for people with disabilities or web content that complies with local or national standards? It is questions like these that have fueled the ongoing debate over WCAG enforcement. For instance, many sites are given “WAI compliance level AAA”, but it is questionable whether these claims are correct and whether the assessed sites are actually accessible. On the other hand, suppose that a site uses PDFs and that the web pages are not technically valid, the website (probably) is not even WCAG level A compliant; does this necessarily mean that it is inaccessible? One would be

surprised to find that accessible web content is often non-compliant to standards and does not satisfy any legal requirements.

9. Conclusions

Regrettably, enforcement has not made web content more accessible, as real-life experience has shown. Current websites, as research has shown, are three times harder to use for people with disabilities than for users without disabilities. Moreover, current sites are twice as difficult for people older than 65 years to use than for younger users [Slatin & Rush, 2003]. Many are those who argue that education and widespread awareness of accessibility issues could yield more results as far as guidelines compliance is concerned.

Moreover, guidelines should be better viewed as “helping” tools, subject to assessment and constant improvement, not as indisputable laws. They may be a good basis, but they should better be seen as a continuum, a step in the way, not as a final destination [Zeldman, 2003]. Legal standardization could also be seen as a tool to measure accessibility and not as an intimidating means of ensuring guidelines compliance. Not aiming at punishment, standardization in the form of a strong recommendation could be gradually promoted in the public sector to yield minimal compliance to accessibility guidelines.

Seemingly, the question of whether the carrot (motivation) is preferable to the stick (fear of non-compliance sanctions) remains to be answered. Nevertheless, considering the value of knowledge and education in all aspects of life, perhaps raising sensitivity to accessibility issues and awareness about benefits, i.e. positive outcomes, from adopting an accessibility-friendly attitude, as well as negative aspects of inaccessibility, (in other words, providing motivation), could prove a more successful means of disseminating accessibility principles and standards.

Working on accessibility based on common sense, avoiding “regulations mindsets” and accepting the relativity of the “design for all” motto might be more effective in the long run; “design for most” is probably the highest possible to achieve, whereas the reality today is “design for some”. Emphasis on the (cyber)ethical problematic of dealing with web accessibility issues in the modern, civilized world of acknowledged human rights, as well as on the practical benefits of making web content accessible to a wider audience of users-consumers, could, in the long run, raise hope of achieving a more accessible, functional and interoperable web for all.

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