

Could Digital Accessibility Impact the 2016 President Race?

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Much has been written about our nation's first post-boomer candidate for president, Barack Obama and his historic win at the 2008 presidential race. Dubbed as the first president of the social media age, his campaign understood the relevance of technology and how to use it in a new and impactful manner. By embracing social media to connect with American voters, the Obama administration forever changed the way American presidents relate to the public and illustrated technology's impact on the outcome of presidential elections.

Fast forward to October 2016 — the 2016 presidential race is a close call with the Trump campaign needing to win women, Latino and black votes and the Clinton campaign needing to win the millennial votes. Once again, the opportunity to use technology as a competitive differentiator and in a new and impactful manner could arguably make a difference.

We celebrate October as the National Disability Month and acknowledge the 57 million people or approximately 20% of the population who have a disability according to the <u>U. S. Census Bureau</u>. For Trump, the disabled represents a larger population than the <u>38 million African Americans and 50 million Hispanics or Latinos</u> whose votes are at stake. For Clinton, the disabled population of 57 million people is slightly less than the millennials who account for 69.2 million people as of April 2016.

Recently, Mphasis conducted a website accessibility assessment on all presidential candidate websites using basic criteria from Web Content Accessibility Guidelines (WCAG) 2.0 as a benchmark. The key objective was to assess how individuals with varying disabilities could access candidature information and get access to more important and relevant activities such as volunteering or making a donation through their websites.

The results were disappointing. From a set of just nine common WCAG criteria, the top candidates' websites averaged an accessibility score of only 11%, which meant little-to-no consideration given on making candidature information available to all, or in other words, ensuring individuals with disabilities get an equal opportunity to fully engage with candidates through their websites.

Examples of Accessibility Issues and Their Impact on Candidate Websites

The findings shared in this assessment are not intended as endorsement for Clinton, Trump, or Johnson. Rather, the findings are meant to serve as a call to action for Web Developers, Content Authors, and the organizations (or candidates) they represent to be more inclusive in their design and development efforts.

It is Mphasis' hope that by sharing the findings of this review, Mphasis will be able to

- a) Raise awareness of the importance of digital accessibility,
- b) Inspire those candidates to take firm positions in favor of digital inclusion, ushering the rule-making processes along the way, and
- c) Take necessary actions to improve their own Website accessibility.

To learn how to be compliant in light of the pending updates to all, the Americans with Disabilities Act, to Section 508 of the Rehabilitation Act and for the uptick in litigation around digital accessibility (60% this year according to Seyfarth Shaw LLP), please contact Cristopher Broyles, Mphasis' Chief Accessibility, Diversity, and Inclusion Officer at Cristopher.broyles@mphasis.com.



Examples of Accessibility Issues

Example 1 – Make online donation

Both sites promote online donations on their landing pages but how well are they able to convert assistive technology users into potential donors? Well, that depends on how well their HTML code is written to support assistive technologies like screen readers, voice recognition tools, screen magnifiers and keyboard-only navigation, to name a few.

Donald Trump's website fails in following basic HTML standards to make the site keyboard compliant. Keyboard users cannot go beyond donation amount selection due to improper markup on "Continue" button; making the interaction available through a computer mouse and not keyboard. This significantly reduces the number of users (including screen reader user) from even attempting to make any kind of online donations.

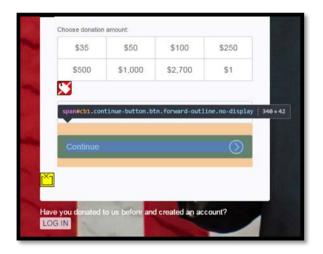


Figure 1: Assessment report screenshot – Call to action on 'Continue' button uses span tag instead of anchor or form tag, making the interaction non-accessible through keyboard.

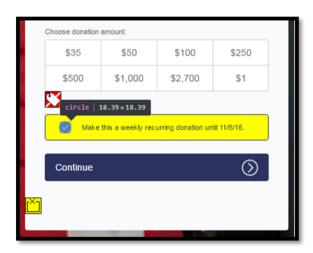


Figure 2: Assessment report screenshot – Checkbox selection using circle attribute instead of form element.

On the contrary, Hillary Clinton's website works well on the keyboard but missing form labels and button elements make comprehending information difficult for users who are visually impaired. This could potentially de-motivate users from making a donation and skip to main content of the website.



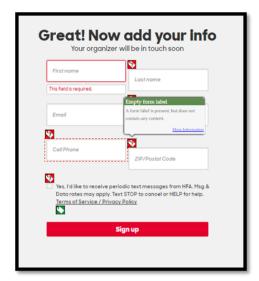


Figure 2: Volunteering form using placeholder text with empty label fields causing confusion with screen readers and no visual cues on mandatory.

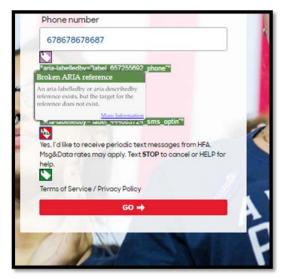


Figure 3: Similarly, broken ARIA references on signup form.

Example 2 – Sign-up for updates or volunteer

Let's take the example of how well users with disabilities can sign-up for campaign updates, events or even support as a volunteer.

Donald Trump's website, yet again, due to keyboard non-compliance fails to meet this basic user requirement. It has multiple issues:

- 1. Volunteer option is hidden under the sign-up form which could be highly difficult for users to guess, unless someone stumbles upon it accidently.
- 2. "Get involved" link that initiates a 'Sign-up' form does not ensure keyboard focus moves to the overlay where the sign-up information is displayed.
- 3. Last, but most importantly, even if the user manages to navigate to 'Sign-up', the form submission is particularly difficult for visually impaired users due to mandatory captcha selection (CAPTCHA a type of challenge-response test used in computing to determine whether or not the user is a human sounds insane but true.)

Transcript from feedback captured during the assessment from our Accessibility Tester who is visually impaired—

"Opening the page, I found that I'm not allowed to go further till I solve the captcha. It would have been ok if the captcha was made accessible. But it was not accessible. Clicking the 'I am not a robot' check box, I couldn't understand if captcha region was open or not. The focus has not been set automatically on the captcha region."

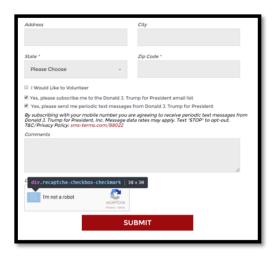


Figure 4: Sign-up form with Captcha selection using div tag to trigger focus.

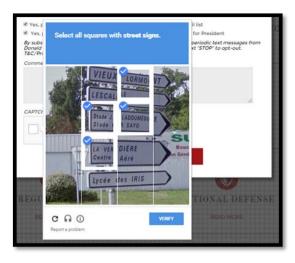


Figure 5: Signup form with Captcha that shows an array of visuals to select from, on confirming "I'm not a robot".

Interestingly, Hillary Clinton's website has an upfront volunteering option but buried under a not-so-effective label - 'Act' and another in the footer. Both the options initiate a sign up form with several coding issues such as missing ARIA (Accessible Rich Internet Application), missing or no meaningful label/description and no visual cue for mandatory/non-mandatory items.



Figure 6: Report indicating missing label for screen reader to identify "Other Amount" text field.



Figure 7: Report indicating empty button elements on donation widget. This can confuse a visually impaired user who could be trying to get a perspective on how the screens flow from step 1 to 3 while making a donation.

Example 3 – Accessing candidate information on issues and policies

Both candidate websites have a good site navigation which allows all users to access candidate information on policies, views, debate etc.. However, both fair poor when it comes to navigating content within a page due to various reasons such as missing descriptions on images, improper HTML heading structure and hierarchy, empty or non-labeled buttons/scripts/tags, overlay with show-hide transition between elements without supporting text, etc. This makes it difficult for visually impaired users or users using screen magnifiers to understand the content layout and structure in a way that is understandable and can make sense to them.

Issues on Donald Trump's website:



Figure 8: Assessment report indicating missing alternative text on images, missing <h> heading tags, improper semantics and skipped headings (improper ordering of headings from <h1> to <h6>.



Issues on Hilary Clinton's website:



Figure 9: Hillary Clinton's website uses images without descriptions instead of text at several places, making that information non-available to visually impaired users or even users who disable images on their machines.



Figure 10: Hillary Clinton's site footer with missing heading attribute.

Many of these short-comings could have been avoided by attention to basic HTML coding, best practices and attention to accessible Web-design principles.

The results echo the frustrations that users with disabilities typically have and continue to express since the dawn of Internet.

Some of the other bare minimum accessibility criteria that were assessed are listed below, where "No" indicates that we found at least one instance of the technical criteria not being met in the pages sampled and a "Yes" indicating that the criteria was met in full in the pages sampled:



Table 1: Assessment table highlighting accessibility criteria compliance against presidential candidate website

Presidential Candidates	URL	Alt Text	Color Contrast	Keyboard -Only Access	Skip Nav.	Captions	Lang=	Search / Sitemap	Bread- crumbs	Link Text
Trump	Main: https://www.don aldjtrump.com/ Video: https://www.don aldjtrump.com/m edia/category/ads	No	No	No	No	No	No	No	No	Yes
Clinton	Main: https://www.hilla ryclinton.com/ Video: https://www.hilla ryclinton.com/ab out/hillary/	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Johnson	Main: https://www.john sonweld.com/ Video: https://www.john sonweld.com/vide os	No	No	No	No	No	No	No	No	No

If you find these accessibility findings interesting and useful, and would like to know more on this topic visit http://www.mphasis.com/digitalAccessibility.html.

References

Reference of all assessment material, content and images from:

- https://www.donaldjtrump.com/
- https://www.hillaryclinton.com/
- https://www.johnsonweld.com/



Authors



Cristopher Broyles, Mphasis Chief Accessibility, Diversity, and Inclusion Officer

Cristopher Broyles is Mphasis's Chief Accessibility and Inclusion (A&I) Officer. He has been in the accessibility and inclusion space for over 15 years. Cris has provided guidance and assistance to many large organizations, including rule-making and enforcement bodies such as the U.S. Access Board, the U.S. Department of Justice, and the White House. In addition to leading global-reaching A&I programs for Mphasis, Cristopher serves as a Board Member for the International Association of Accessibility Professionals.



Kavita Doshy, Co-Author, Senior User Experience and Accessibily Specialist

Kavita Doshy is a seasoned UX and Accessibility specialist with 12+ years of hands on industry experience. Kavita has championed the adaption of user centered design philosophies in order to convert complex design models into delightful customer experiences. She has also executed multiple usability and accessibility assessments for some of our prestigious clients across the global.

