



By

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## 6 tips for better website accessibility

The benefits of the web are not evenly distributed. It promises easy access to content and tools for everyone, but frequently fails to include the needs of people with impairments, whether permanent (over 57 million people in the US alone) or temporary (all of us at one point or another).

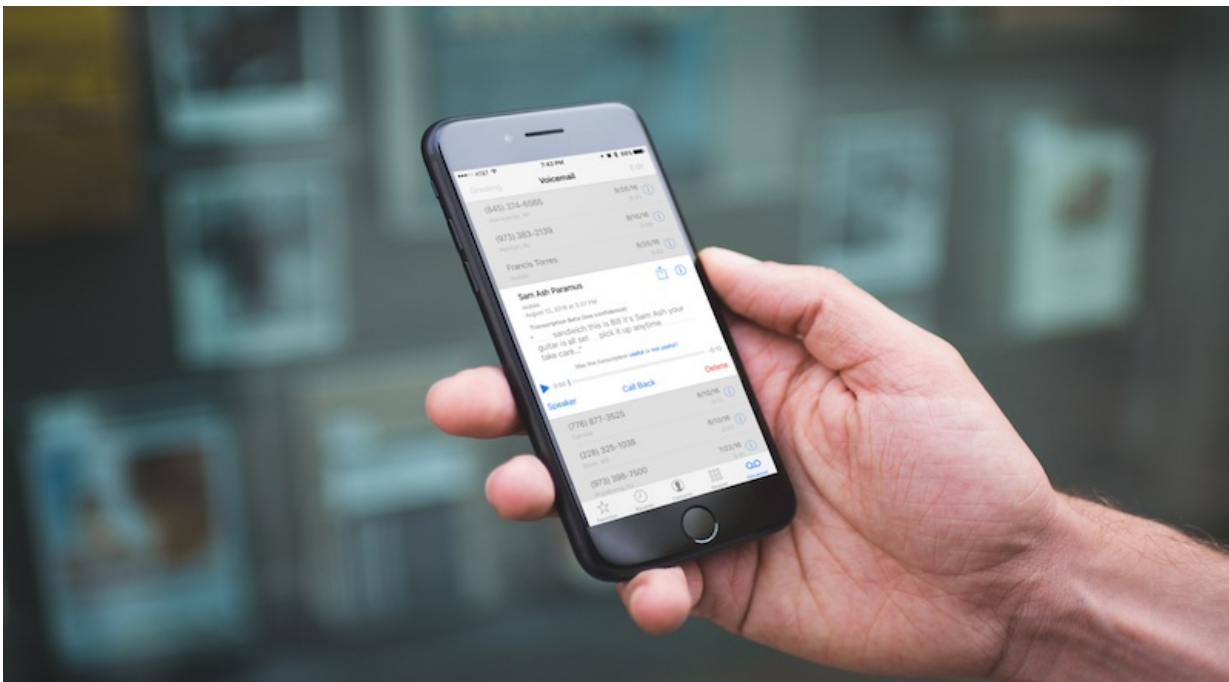
Sites are often not designed and built to be inclusive. Our site was no exception, so we embarked on a journey to uncover and remove its accessibility barriers.

Here are the key takeaways.

### 1. Start with solid UX and coding practices

Let's start with some good news: a site built on standards-compliant code and designed for optimal ease of use will already meet many accessibility guidelines. These include descriptive links, error prevention, alternate wayfinding mechanisms, well-structured content with clear headings, support for keyboard navigation, review-before-commit, and sufficient contrast.

In other words: many things that benefit disabled users benefit everyone (which is also one of the principles of inclusive design).



Apple's voicemail transcripts create a better experience for people with a hearing impairment and simply anyone who is in a noisy environment.

### 2. Retrofitting is a pain

Unfortunately, like most sites today, our site wasn’t created with accessibility in mind, so we were faced with the somewhat daunting task of fixing problems across a couple hundred pages (many of them blog posts).

We prioritized our efforts to maximize our impact:

- 1. Ensure accessibility of new content by educating and collaborating with content producers and gatekeepers.
- 2. Fix shared components (i.e., anything that impacts many pages), including CSS, templates, global navigation, and footers.
- 3. Fix individual pages, prioritized by number of visits.

We’ve made great progress so far, but the work is ongoing.

### 3. Guidelines can be unwieldy

Published guidelines, especially the official [W3C WCAG guidelines](#), can feel abstract and overwhelming, and many sites that host them add to the misconception that accessible sites can’t be modern or appealing. Fortunately, there are some good resources out there that make it easier to digest ([Wuhcag](#)) and more practical ([WebAIM](#)).

A number of standards also required more research to fully understand. Even something as well-known as providing image alt texts is not as straightforward as it first appears ([context is everything](#)).

- We set out to create a simpler and more practical tool, as shown below. We knew that we wanted to aim for WCAG 2.0 AA compliance, so first, we simplified by consolidating some of the overlaps between levels A and AA.
- We further simplified by recognizing that each role (developer, designer, etc.) only needs a subset of these guidelines, so we enabled filtering by role.
- We also took a more user-centered approach to grouping the guidelines, making it easier to find (or ignore if irrelevant) all the guidelines associated with common features (e.g., audio and video, forms, navigation, etc.).
- Finally, we made it more practical by adding tips on how to validate each guideline and links to sample solutions where available.

We also prioritized improvements to our general design and development practices by understanding where those were falling short and emphasizing the associated guidelines:

- 1. Color contrast for visual design.
- 2. Dynamic behaviors for interaction design and development.
- 3. Resizing text without breaking the page or losing text for development.
- 4. Image alt text for bloggers.

Accessibility Checklist :: WCAG 2.0 AA Compliance

Filter by Role:

VsD

lxD

Dev

Wri

PM

ALL

Site Level

Navigation & Actions

Offer alternative navigation beyond main nav-only or search-only (sitemap/search/links to related pages/redundant footer links/etc)  
Check site: see if any of these are offered (may require multiples)

lxD

PM

Details

Use consistent placement & appearance of nav & actions  
Check site: see if navigation is consistent

VsD

lxD

Details

Add invisible Skip to Content link, bypassing global navigation  
(Wave) Turn on No Styles, see if there's a Skip to Content link preceeding the main navigation.

Dev

Details

Template Level

Page Layout

Define a linearized sequence that reflects priority of the content/functionality  
(Wave) Turn on No Styles, see if most important content/functionality is (still) at the top.

lxD

Dev

Details

Don't rely solely on on-change/on-input/on-hover effects to bring up content or functionality (style change is fine)  
Is there dynamic behavior that brings up content or functionality? If yes: (Wave) Turn on No Styles, see if dynamic content is visible (and what that does to the page).

lxD

Dev

PM

Details

In the code, identify Header, Navigation, Content and Footer sections  
(Wave) Check markers for HTML and Aria

Dev

Details

Text Size

Allow user to increase text size by up to 100% without losing content or requiring horizontal scrolling  
In Chrome: Settings > Advanced > Font Size: Extra Large. Reload the page, see if text size increased and if any of the content has become inaccessible or requires horizontal scrolling.

Dev

PM

Details

Page Level

Images

Provide text-alternative (alt-tag) if image conveys information (blank if decorative-only or redundant with text on page)  
(Wave) Check alt tag markers, use judgement: Are they descriptive if conveying information, blank ("") if not?

lxD

Dev

Wri

Details

Examples

Prevent redundant nearby alt text  
(Wave) See markers

lxD

Dev

Color & Contrast

Use at least 4.5:1 text-background contrast (exceptions: large text and logo text)  
(Wave) Select Contrast tab, see markers

VsD

PM

Details

Sketch plugin

Material Design Tool

Part of the guidelines tool we created

### 4. Automated inspection tools can only do so much

Accessibility inspection tools are helpful but far from enough to get the full picture. They can accurately identify certain types of issues, but they miss others and often only point to a *potential* issue.

For example, they may show which images have no alt tags (always bad), but not if the images that *do* have alt tags have the *right* tags (either descriptive or blank) - for that, each image still needs to be manually assessed in the context of its page.

In the right hands, automated tools can augment but not replace manual inspection.

### 5. Exposure to people with disabilities is invaluable

We wanted to get a deeper understanding of the unique ways that many people use the web and build empathy for their struggles, so we invited people with different disabilities to our labs, where they used our site with their own assistive technology.

Nothing beats seeing and hearing firsthand how someone with a disability uses your website. It also allowed us to uncover some issues we hadn’t yet found through the guidelines-based review.

## 6. Get ready to investigate, collaborate, and iterate

Accessibility impacts development, design, content, and product. We collaborated and iterated on solutions that were feasible, desirable, and on-brand. (The impact on the brand, especially, can be contentious. When we changed the color of our hyperlinks from our “brand green” to a darker green for contrast, it almost felt like we’d gone from a design company to an outdoor company. Nevertheless, we persisted.)

Here are two examples of the solutions we created in design and code:

### Tiles/Cards

**We use interactive tiles in many places across the site, but each caused a host of accessibility issues.**

#### Before:

- The imagery consisted of a main image plus a small logo image; each had an alt text that was neither descriptive nor blank.
- Link duplication between clickable image and “View Case Study” was confusing in screen reader software.
- The clickable image had no visible focus when navigated to by keyboard.
- The “View Case Study” hyperlinks were not distinct and descriptive.



Providence Digital Innovation Group was interested in creating a digital experience that better connected patients with healthcare providers. [View Case Study](#)

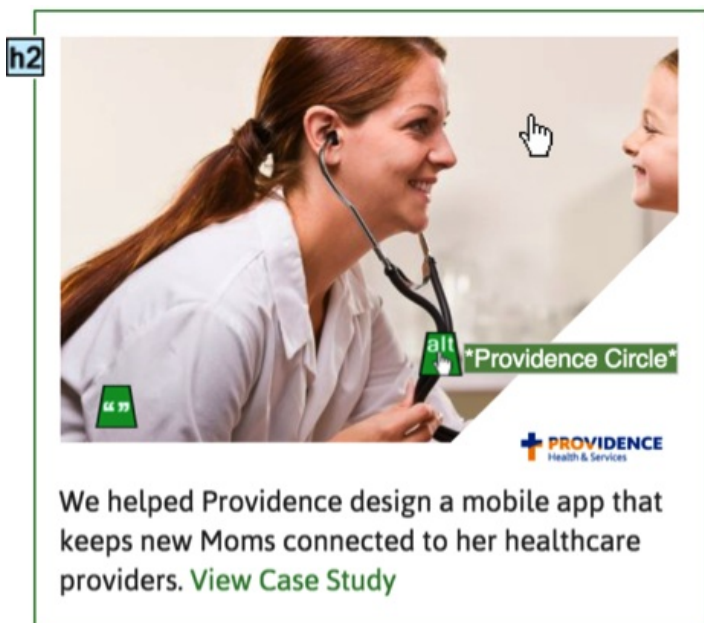


Viverae was looking to build a system that tracked employee health & wellness to solidify behavior change to lower premium costs. [View Case Study](#)

#### After:

Aside from the focus style, this solution required mostly a restructuring of the code.

- Coded as a single unit with a single hyperlink.
- Clear visual focus when tabbed to or hovered over.
- Can be accessed when navigating by headers (<h3>).
- Logo alt tag conveys its meaning for screen readers (“Clipper Vacations”).
- Main image alt tag hides it from screen readers (“”).






# Error recovery

When a form returns with an error, most of us can easily tell what happened and what to do from the visual highlighting of the message and field, but blind people don't have that luxury.

## Before:

- Blind users using a screen reader couldn't easily tell why the page reloaded.
- They had to read the content again until they eventually came across the error message.
- They still didn't know which field to edit, so they had to go through each field again to find it.



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**There was a problem with your submission. Errors have been highlighted below.**

---

Name \*

Al

Fresco

FirstLast

Company

AF Industries

Email \*


This field is required.

Phone

How did you hear about Blink?

Select One

How can we help you? \*



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## After:

- Error message moved to the top to be the first piece of content the screen reader sees.
- The error message is explicit and hyperlinked, taking the user straight to the field with invalid input.
- The field is marked "area-invalid" in the code, so screen readers can detect its status.

**There was a problem with your submission.**

• Please [enter your email address](#)

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|                                         |                      |                      |
|-----------------------------------------|----------------------|----------------------|
| Name *                                  |                      | Company              |
| <input type="text"/>                    | <input type="text"/> | <input type="text"/> |
| First                                   | Last                 |                      |
| Email *                                 |                      | Phone                |
| <input type="text"/>                    |                      | <input type="text"/> |
| <b>This field is required.</b>          |                      |                      |
| How did you hear about Blink?           |                      |                      |
| <input type="text" value="Select One"/> |                      |                      |
| How can we help you? *                  |                      |                      |
| <input type="text"/>                    |                      |                      |



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## Onward!

Accessibility is much harder if we let it become an afterthought. Retrofitting is time-consuming and costly. The solution is to think of accessibility needs as no different from, say, mobile needs and proactively design and develop for them. The principles, guidelines, and solutions are already out there.

UX was founded on our ability to look beyond our own needs and preferences. Let's continue and extend that tradition and create products that are truly inclusive.