



November 5, 2025

Guest Lecture

User Experience Design: **Understanding Accessibility**

Hello,

I'm Matt Wolf and I am the Owner and Creative Director of Wyndetryst. After working as an in-house graphic designer for 8 years, designing hundreds of publications annually, it was time for me to take the leap and start my own studio.



I started my love for graphic design at an early age...and the future was *clearly bright!*



Graduated with a B.F.A.
in graphic design



Started career in the
printing industry



Worked for 5 years in-house as
the graphic design manager



Started Wyndetryst

wyndetryst



Wyndetryst Quick Facts

Located in
Philadelphia,
Pennsylvania

Founded
in 2010

Expanding brands
through graphic
design, web design &
presentation design

Over 3,000
projects in
14 years

Part 1

Accessibility Overview

What is Accessibility

Accessibility

"Accessibility" is the practice of making your content usable by as many people as possible.

VS

WCAG

WCAG (Web Content Accessibility Guidelines) is detailed list of guidelines that define what can be considered accessible.

Why Make Web Sites Accessible?

- **Required by law for federal sites**
- **Increasing lawsuits surrounding accessibility (or lack thereof)**
 - *Americans with Disabilities (1973) – most cited law in web accessibility compliance – access of a “technical standard” does not mean sites do not have to be accessible – WCAG provides reasonable accessibility.*
- **It's the right thing to do!**
 - *According to the ADA, accessible websites or mobile apps do not "require people to see, hear, or use a standard mouse in order to access the information and services provided."*



Web accessibility encompasses all disabilities*

* Applies to people without disabilities as well.



Cognitive



Visual



Auditory



Motor



Speech

Cognitive

THINGS TO AVOID

- **Complex navigation mechanisms and page layouts that are difficult to understand and use.**
- **Complex sentences that are difficult to read and unusual words that are difficult to understand.**
- **Moving, blinking, or flickering content, and background audio that cannot be turned off.**



Visual

THINGS TO AVOID

- **Images, controls, and other structural elements that do not have alternative text.**
- **Text, images, and page layouts that cannot be resized, or that lose information when resized.**
- **Text and images with insufficient contrast between foreground and background color combinations.**



Auditory Disabilities

THINGS TO AVOID

- **Audio content, such as videos with voices and sounds, without captions or transcripts.**
- **Media players that do not display captions nor volume controls.**
- **Web-based services, including web applications, that rely on interaction using voice only.**



Physical (Motor) Disabilities

THINGS TO AVOID

- **Websites, web browsers, and authoring tools that do not provide full keyboard support.**
- **Insufficient time limits to respond or to complete tasks, such as filling out online forms.**



Speech Disabilities

THINGS TO AVOID

- **Web-based services, including web applications, that rely on interaction using voice only.**
- **Websites that offer phone numbers as the only way to communicate with the organizations.**



4 Rules of Accessibility

Perceivable

Operable

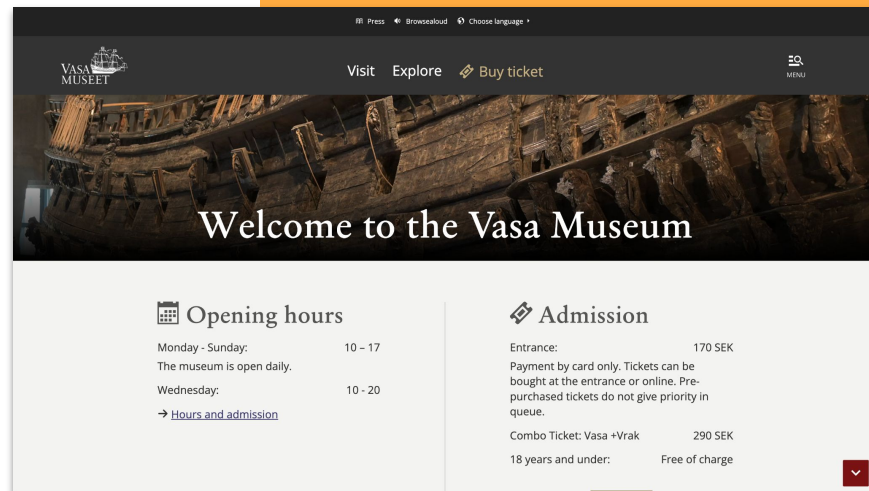
Understandable

Robust

Perceivable

All users must be able to perceive your content. If there is audio or video content, you should provide text alternatives. If there is text content, you should provide audio alternatives or a way that assistive technology such as screen readers can consume it for the end-user.

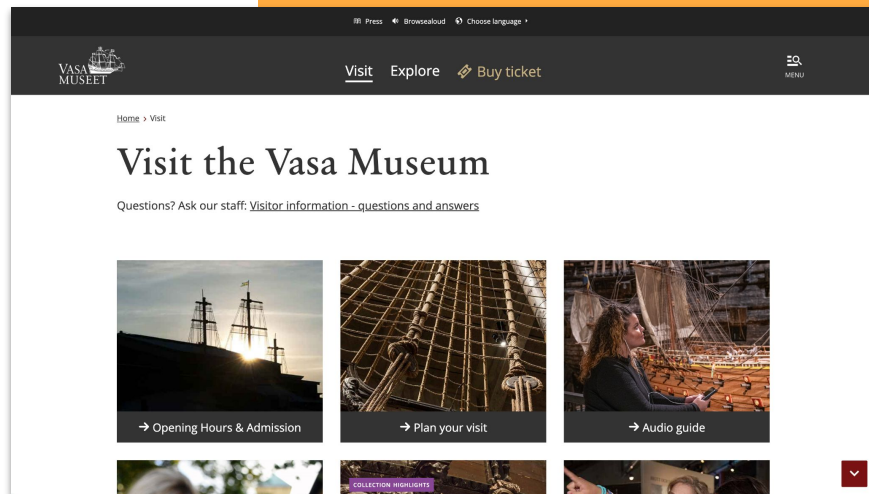
Ask yourself: *Is there anything on my site that a deaf, colorblind, low vision or blind user would not be able to perceive?*



Operable

All users must be able to operate your site. Most users with disabilities use a keyboard to surf the web using character key shortcuts along the way to navigate, interact with, and access content. Your site should be forgiving to your users if they make a mistake, offering ways to retract, correct, and confirm information.

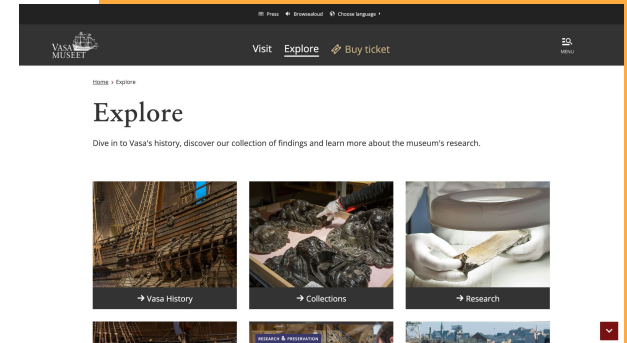
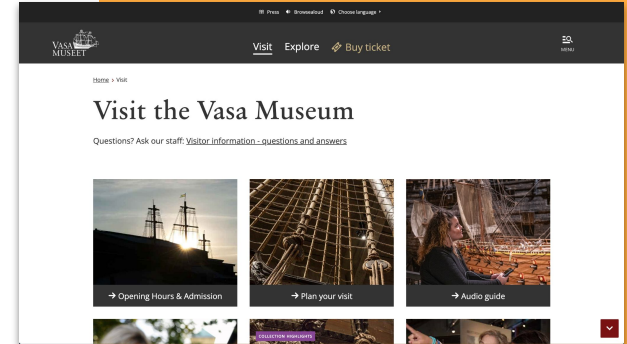
Ask yourself: *Can my site be navigated and operated solely through a keyboard? Do users have control of interactive elements on my site? Are tasks on my site able to be easily and successfully completed?*



Understandable

Screen orientation, consistent layout, gesture customization, element placement and indication. Actionable elements must be clearly indicated.

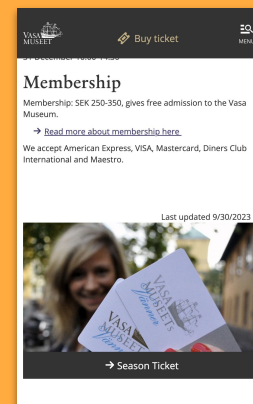
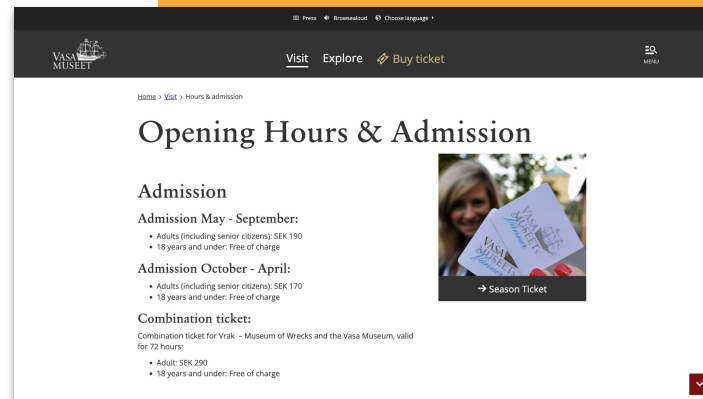
Ask yourself: *Is there anything on my site that a user would not be able to understand how to operate?*



Robust

Keyboard functions should match the operation, zoom, captions and larger fonts must be offered.

Ask yourself: *Is our site developed with best practices in mind? Can our site or application support a variety of devices and browsers? Is the code to our site clean?*



Part 2

Setting Your Accessibility Goal

Choose your WCAG Level

Level A

Level AA

Level AAA

WCAG Level A

Covers the Minimum Requirements

Goal: The site is usable by people with disabilities, but still may have significant limitations.

- Covers the most basic accessibility features.
- Focuses on removing *critical barriers* (e.g., providing text alternatives for images, ensuring keyboard access).

Everyone should at least meet this level.



WCAG Level AA

Industry Standard

Goal: The site is usable and understandable by most users.

- Builds on Level A with stronger usability and visual design rules.
- Addresses color contrast, visible focus, error identification, adaptable layouts, and consistent navigation.

This is the level most organizations—and all U.S. laws and global standards—expect.

WCAG Level AAA

Enhanced Accessibility

Goal: To provide an exceptionally inclusive experience when feasible.

- The highest standard; includes advanced features like sign language interpretation, extended audio descriptions, and stricter contrast ratios.
- Often not practical for every type of content or budget.

Everyone should at least meet this level.

REMEMBER...

**This isn't
just about
websites**

**Kiosks and
Touchscreens**

**Digital Signage
and Wayfinding**

**ATMs and
Payment Terminals**

**Ticketing and
Check-In Systems**

**Smart Devices and
Appliances**

**Exhibit and
Installation Interfaces**

Part 3

Tips for Creating an Accessible Website

Use Alternative Text

- The alt attribute is the HTML attribute used in HTML to specify alternative text (alt text) that is to be rendered when the element to which it is applied cannot be rendered.
- The alt attribute is used by "screen reader" software so that a person who is listening to the content of a webpage (for instance, a person who is blind) can interact with this element.



Alt=Worker loading packages into a truck for Beverly Diner, Telephone 852-212-2500



Alt=Smiling student with a backpack and laptop walking in an academic building

What to consider when choosing ALT content

**What is the
purpose of the
image?**

**What the image
wants to
communicate?**

**What is the subject
or focus of the
image?**

**What is the tone of
the image?**

Tips for writing ALT content

**Describe the image
in context**

**Keep the
descriptions
concise, roughly
140 characters**

**Do not use the word
“graphic or image”**

**Ask from help
from the client**

**If pronouns, race,
age, etc. is
important and
relevant use it.**

**Avoid images with
too much text,
they should be live
copy**

What could an “ALT” be for this image?



What could an “ALT” be for this image?



What could an “ALT” be for this image?



Color and Contrast

- Color contrast: refers to the difference in light between font (or anything in the foreground) and its background.
- The strict rules for color and contrast are:
 - Contrast must be 4,5:1 for any image, image of text, text or icon except for LOGO.
 - Contrast for large text and focus boxes the contrast must be 3:1

The screenshot shows the WebAIM website header with the logo and navigation links: services, articles, resources (highlighted), projects, and community. Below the header is a search bar and a list of links: Introduction to Web Accessibility and WebAIM Training. The main content area features the 'Contrast Checker' title and a breadcrumb trail: Home > Resources > Contrast Checker. The tool interface includes two color selection panels: 'Foreground Color' with a hex code of #0000FF and a blue color bar, and 'Background Color' with a hex code of #FFFFFF and a white color bar. Both panels have a 'Lightness' slider. A double-headed arrow indicates the relationship between the two colors. Below the sliders, a green-bordered box displays the 'Contrast Ratio' as 8.59:1. A 'permalink' link is provided below the ratio. At the bottom, the text 'Normal Text' is shown in red. On the right side, there is a 'Related Resources' section with a list of links: Contrast and Color Accessibility, Quick Reference: Testing Web Content for Accessibility, Web Accessibility for Designers, and Link Contrast Checker.

WebAIM
web accessibility in mind

services articles **resources** projects community

Search:

Introduction to Web Accessibility

WebAIM Training

Contrast Checker

[Home](#) > [Resources](#) > Contrast Checker

Foreground Color
#0000FF
Lightness
↔

Background Color
#FFFFFF
Lightness

Contrast Ratio
8.59:1
[permalink](#)
Normal Text

Related Resources

- [Contrast and Color Accessibility](#)
- [Quick Reference: Testing Web Content for Accessibility](#)
- [Web Accessibility for Designers](#)
- [Link Contrast Checker](#)

<https://webaim.org/resources/contrastchecker/>

Captioning & Transcripts

Important steps to make audio visual content accessible:

- Communicate in more than one way.
- Give options for volume, captions size and color, languages.
- For the deaf or hard of hearing, provide transcripts for audio content and synchronized captions for video content.
- For the visually impaired, provide video description for any visual-only video.
- The media player must also be accessible.



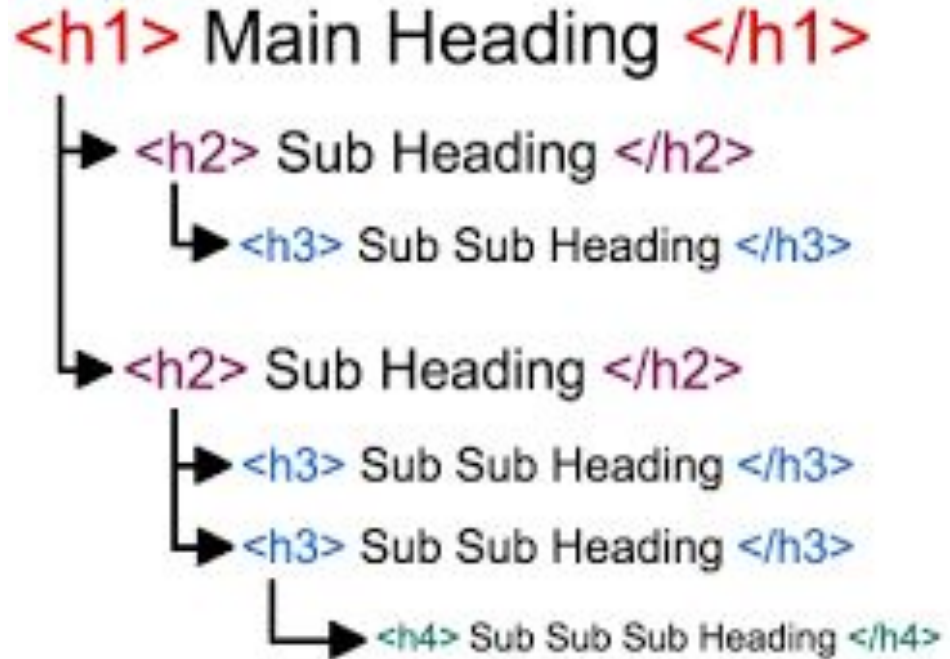
An official website of the City of Philadelphia government [Learn how you know](#) Office of the Mayor City government directory

Select Language	Belarusian	Croatian	French	Hebrew	Javanese	Lao	Malayalam	Oromo	Scots Gaelic	Sundanese	Turkmen	Zulu
Afrikaans	Bengali	Czech	Frisian	Hindi	Kannada	Latin	Maltese	Pashto	Sepedi	Swahili	Twili	
Albanian	Bhojpuri	Danish	Galician	Hmong	Kazakh	Latvian	Maori	Persian	Serbian	Swedish	Ukrainian	
Amharic	Bosnian	Dhivehi	Georgian	Hungarian	Khmer	Lingala	Marathi	Polish	Sesotho	Tajik	Urdu	
Arabic	Bulgarian	Dogri	German	Icelandic	Kinyarwanda	Lithuanian	Meiteilon (Manipuri)	Portuguese	Shona	Tamil	Uyghur	
Armenian	Catalan	Dutch	Greek	Igbo	Konkani	Luganda	Mizo	Punjabi	Sindhi	Tatar	Uzbek	
Assamese	Cebuano	Esperanto	Guarani	Ilocano	Korean	Luxembourgish	Mongolian	Quechua	Sinhala	Telugu	Vietnamese	
Aymara	Chichewa	Estonian	Gujarati	Indonesian	Krio	Macedonian	Myanmar (Burmese)	Romanian	Slovak	Thai	Welsh	
Azerbaijani	Chinese (Simplified)	Ewe	Haitian Creole	Irish	Kurdish (Kurmanji)	Maltili	Nepali	Russian	Slovenian	Tigrinya	Xhosa	
Bambara	Chinese (Traditional)	Filipino	Hausa	Italian	Kurdish (Sorani)	Malagasy	Norwegian	Samoa	Somali	Tsonga	Yiddish	
Basque	Corsican	Finnish	Hawaiian	Japanese	Kyrgyz	Malay	Odia (Oriya)	Sanskrit	Spanish	Turkish	Yoruba	

COVID-19 UPDATES FIND TRASH DAY PAY A BILL EXPLORE CITY JOBS SEARCH FOR A PROPERTY

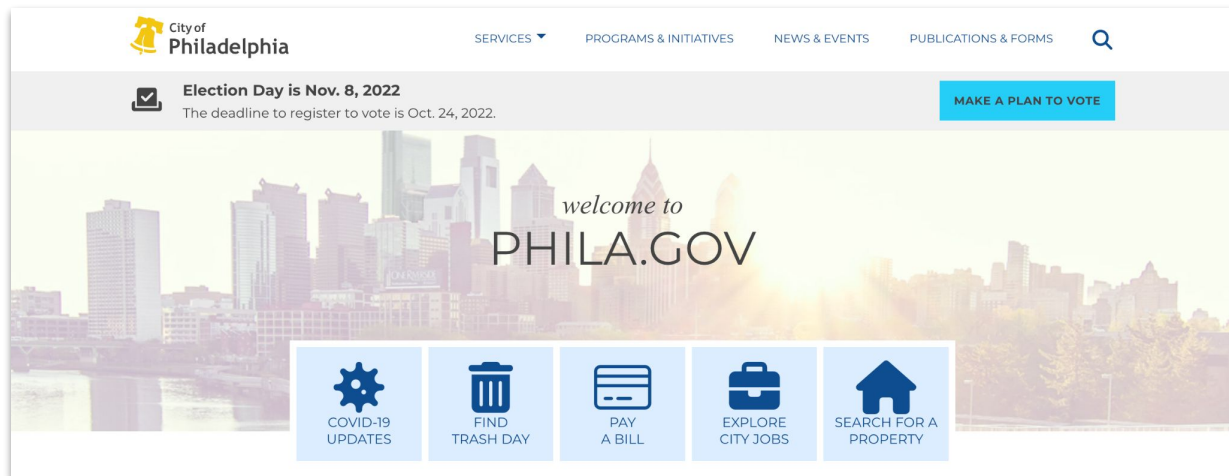
Headings and Content Structure

- Headings: Add and nest them logically to label sections, remember they work like titles and subtitles, there can only be one main title (H1) per page. Headings should be created through hierarchy.
- Content Structure: Mark up content that uses appropriate and meaningful elements, links and buttons should be marked as such as well as tables, this will help anyone navigating with a screen reader using keyboard shortcuts.



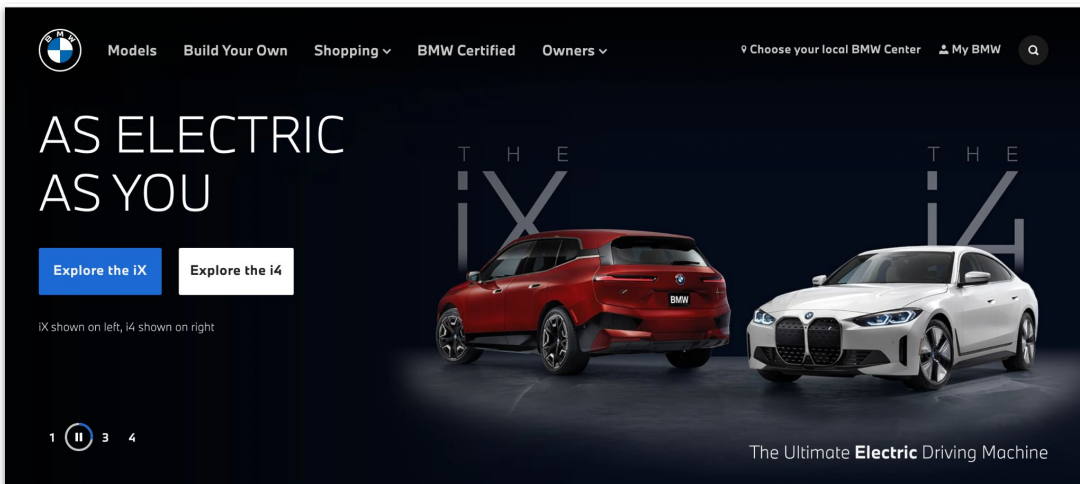
Provide Meaningful Links

- Give your links unique and descriptive names.
- Use text that properly describes WHERE the link will go.
- The most unique content of the link should be presented first.
- For example
 - if you are pointing visitors to a page called "About Us": Try not to say: "Click here to read about our company." Instead, say: "To learn more about our company, read About Us."
- When impossible use alt text



Moving, Flashing, Blinking Content

- Make sure timers can be adjustable or include the possibility of turning them off completely.
- Note that content that blinks more than three times a second can cause seizures for people with photosensitive disorders.
- Avoid fast high contrast changes these may trigger seizures.



How to Test Accessibility

1

Decide the WCAG compliance level

.

2.

Perform an automated audit with a tool like “Google Lighthouse”

3.

Perform a manual audit with an accessibility expert

4.

Remediate/fix the issues found in the audit

5.

Test again to make sure everything was fixed and no new issues have popped up

6.

Compliance is reached when all steps are complete

**As always the goal is to design
with accessibility in mind
from the start.**

Get in Touch!



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<https://www.linkedin.com/in/wolfmatthew/>