October 23, 2024

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

Marywood
U N I V E R S I T Y

Started career in the
printing industry

Bedwick & Jones
Printing Inc.

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

ARCADIA
UNIVERSITY
FOUNDED 1853

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."*

4 Rules of Accessibility

Perceivable
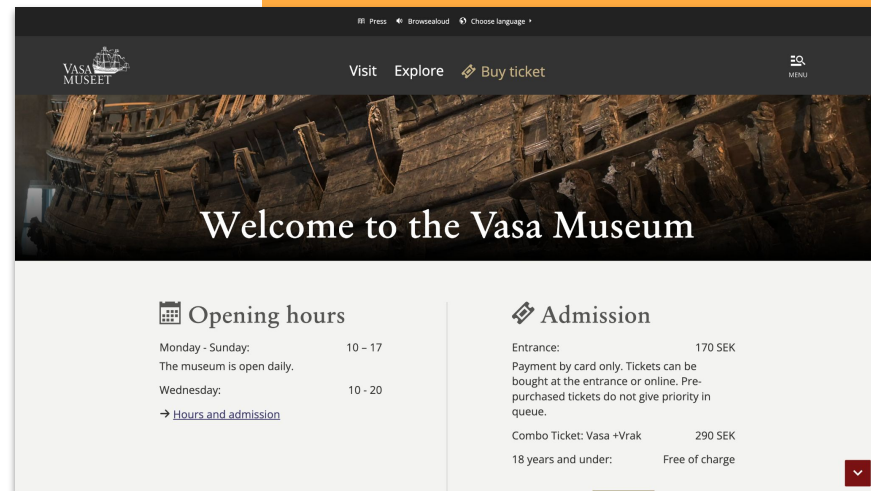
Operable

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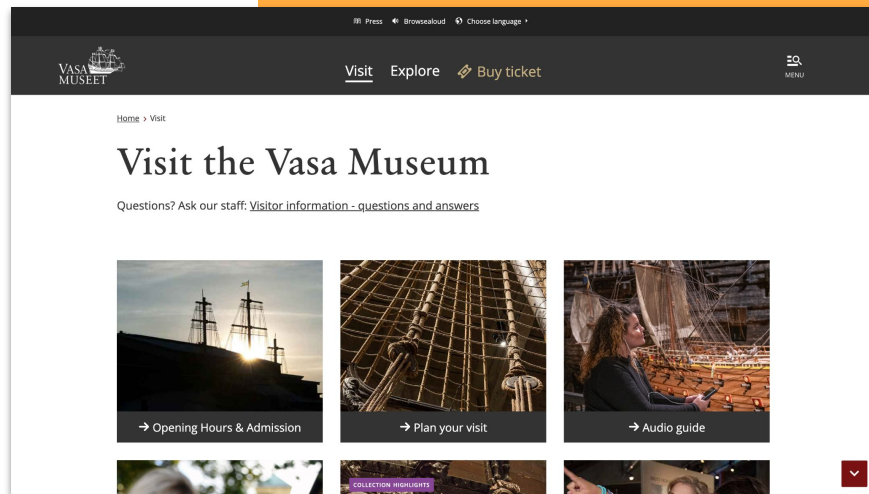
Ask yourself: *Is there anything on my site that a deaf, colorblind, low vision or blind user would not be able to perceive?*

Press ⚟ Browsealoud ⚟ Choose language ▸

VASA
MUSEET

Visit   Explore   🎟 Buy ticket

☰Q
MENU

Welcome to the Vasa Museum

📅 Opening hours

Monday - Sunday: 10 – 17
The museum is open daily.

Wednesday: 10 - 20

→ Hours and admission

🎟 Admission

Entrance: 170 SEK
Payment by card only. Tickets can be
bought at the entrance or online. Pre-
purchased tickets do not give priority in
queue.

Combo Ticket: Vasa +Vrak   290 SEK

18 years and under: Free of charge

Source: https://www.c2experience.com/blog/wcag-21-guidelines-explained-with-examples

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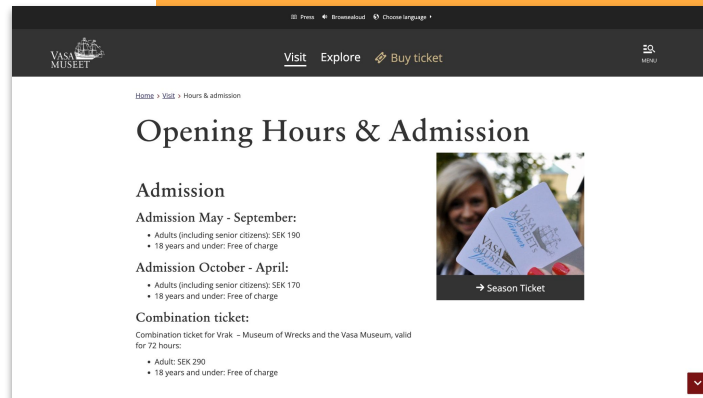
Ask yourself: *Is there anything on my site that a user would not be able to understand how to operate?*
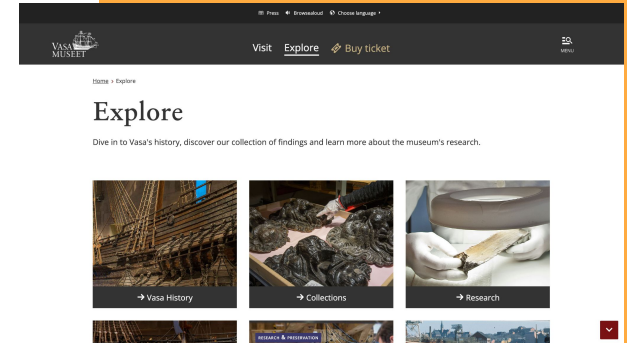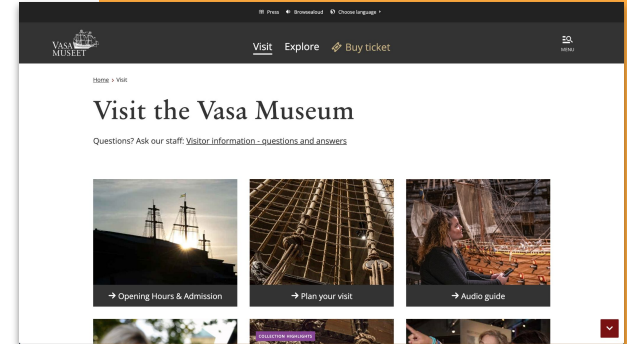
Robust

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?*
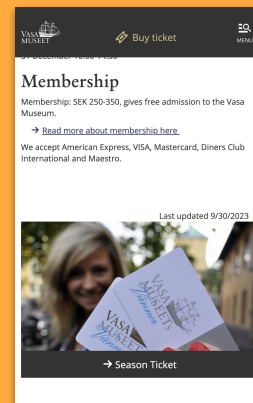
Web accessibility encompasses all disabilities

Cognitive Disabilities

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 Disabilities

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.

Part 2

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?

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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

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.

Source: https://www.resultsonellc.com/
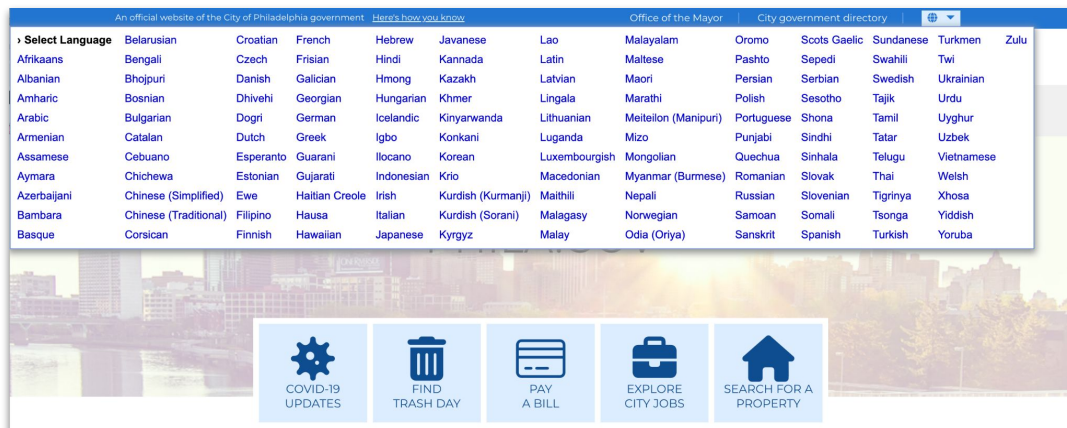
Headings and Content Structure

- 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.
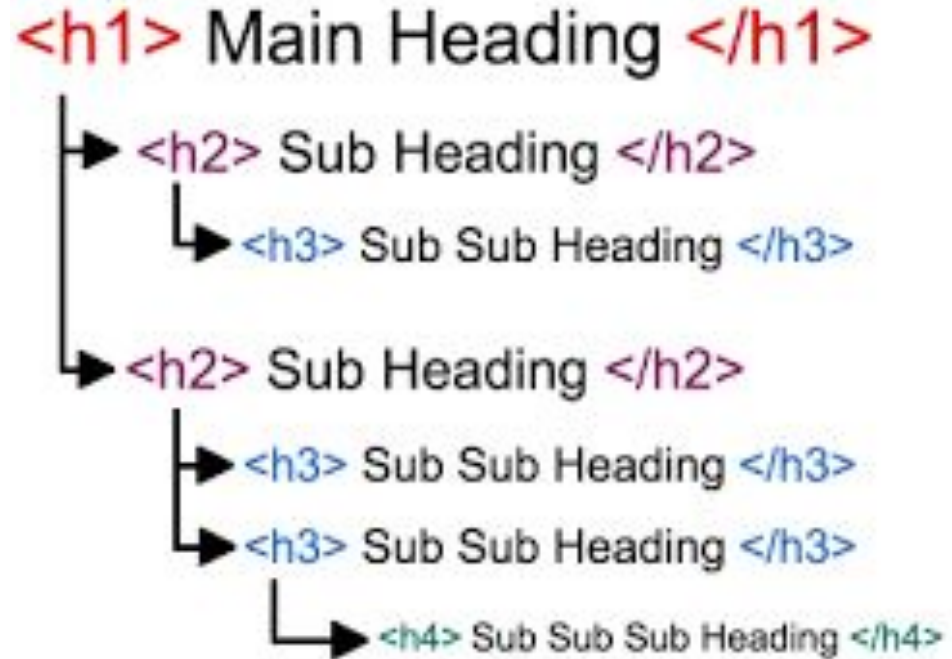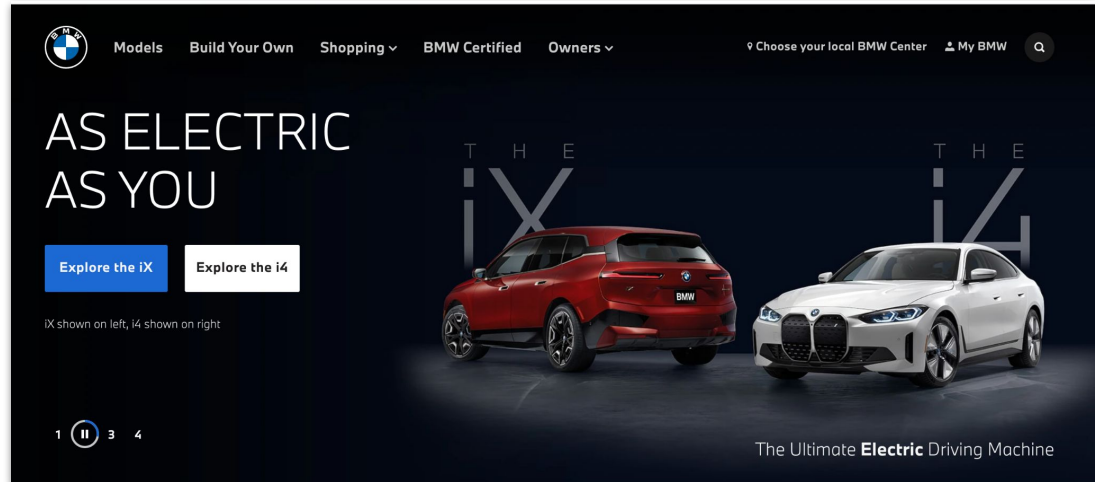
Provide Meaningful Links

- 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.

AS ELECTRIC
AS YOU

Explore the iX   Explore the i4

iX shown on left, i4 shown on right

The Ultimate **Electric** Driving Machine

Models   Build Your Own   Shopping ⌄   BMW Certified   Owners ⌄   Choose your local BMW Center   My BMW

How to Test Accessibility

1. Decide the WCAG compliance level

2. Perform an automated audit with a tool like "AccesiBe"

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 <u>from the start.</u>

Get in Touch!

Email:
matthewwolf@wyndetryst.com

Website:
wyndetryst.com

LinkedIn:
https://www.linkedin.com/in/wolfmatthew/