


Accessible Slideshows

Button, button, who's got the
button?

AmyJune Hinline

Senior Community Manager of Opensource.com



A historical map of the Southeastern United States, showing various Native American territories and river systems. The map is color-coded, with a large red-shaded area covering the central and eastern parts, and a pink-shaded area to the west. Rivers such as the Tennessee, Savannah, and Altamaha are labeled. The word "Chocktaw" is written in the pink area, and "Muscogee" is written in the red area. The word "FLORIDA" is written vertically in the red area. The word "MICO" is written at the bottom left. The text "Colonialism is a current ongoing process, and we need to build our mindfulness of our present participation." is overlaid on a teal background on the left side of the map.

Colonialism is a current ongoing process, and we need to build our mindfulness of our present participation.



Amy June Hineline

Senior Community Manager
at Opensource.com



[linkedin.com/volkswagenchick](https://www.linkedin.com/volkswagenchick)



twitter.com/volkswagenchick

What we'll discuss today

- ▶ What is Accessibility?
- ▶ Terms and Definitions around accessibility
 - Standards and Guidelines
 - Theoretical Models of Disability
 - Assistive technology
 - The first rule of slide shows
- ▶ Slideshows and their components
- ▶ Images



Accessibility
means
EVERYONE



Why design for accessibility?

Include a wider consumer base for your content. You don't want to exclude people from using your products and services. It's the law!



26%

Of people living in the United States live with a disability

**Down the
Rabbit Hole
of
Accessibility**





ADA

The Americans with Disabilities Act

Prohibits discrimination and guarantees that people with disabilities have the same opportunities as everyone else to participate in the mainstream of American life.

Section 508

Section 508 (29 U.S.C. § 794d)

Section 508 of the Rehabilitation Act requires federal agencies to develop, procure, maintain, and use information and communications technology (ICT) that is accessible to people with disabilities.



WCAG Guidelines

Web Content Accessibility Guidelines (WCAG) goal is to provide a single shared standard for web content accessibility.

They are success criteria, not an end all.

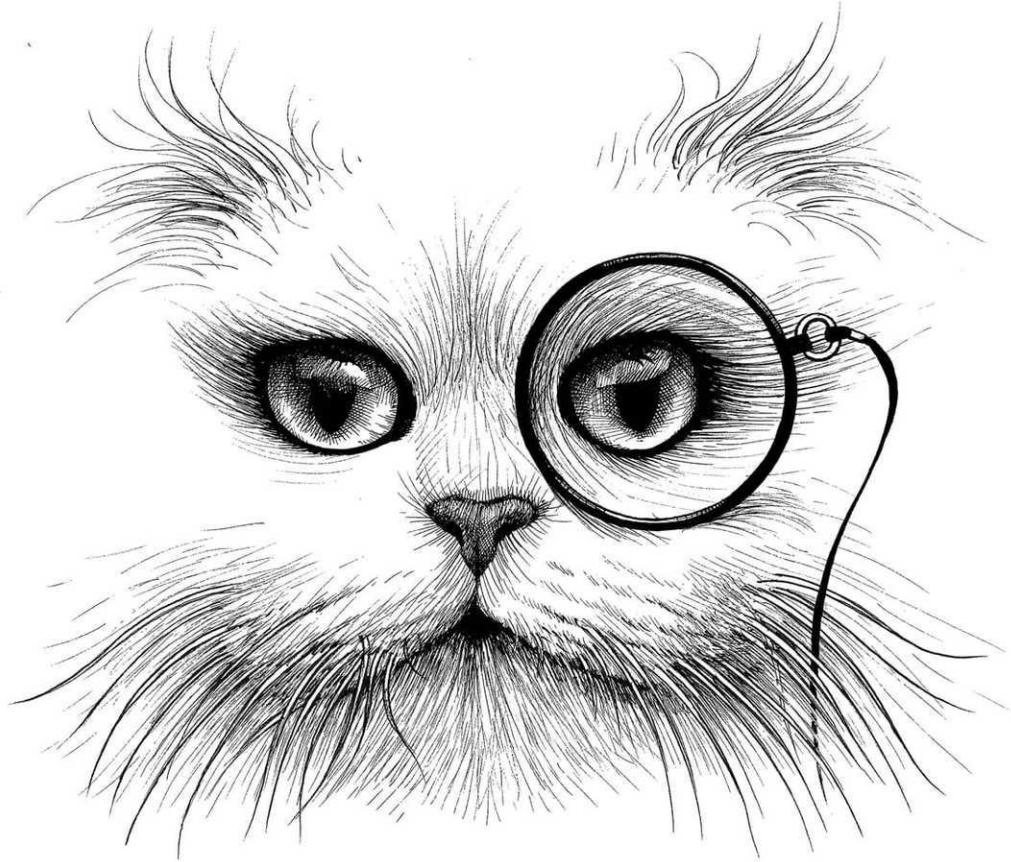
Accessibility, Inclusion, and User Experience are are very different things, they compliment each other, but they are different.



POUR

An acronym for four high-level principles around accessibility:

- ▶ **Perceivable**
Perceivability means the user can identify content and interface elements by means of the senses.
- ▶ **Operable**
Operability means that a user can successfully use interactive elements.
- ▶ **Understandable**
Users should be able to comprehend the content, and learn and remember how to use the interface.
- ▶ **Robust**
Users should be able to choose the technology they use to interact with digital assets.



Visual Needs

Make it easy to see.

Accommodate visual needs.



Motor Needs

Make it easy to interact with.

Accommodate motor needs.



Auditory Needs

Make it easy to hear.

Accommodate auditory needs.



Cognitive Needs

Make it easy to understand.

Accommodate cognitive needs.



Theoretical Models of Disability

- Medical Model
- **Social Model**
- Biopsychosocial Model
- Economic Model
- And more....

Inclusive design

It had snowed. A student waited in his wheelchair while the janitor shoveled the front steps.

The janitor said, "I'll shovel the wheelchair ramp after I'm done with the steps."

The student said, "If you clear the ramp first, then everyone can get in."

Assistive Technology

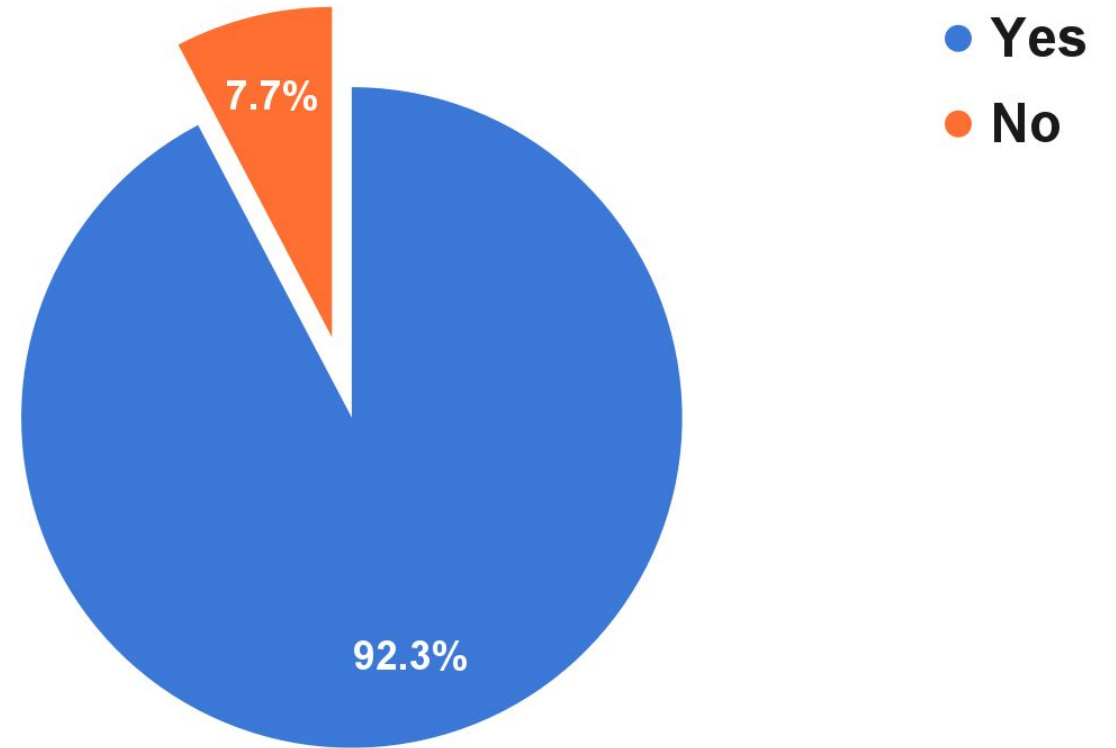
AT is any device, software, or equipment that helps people work around challenges that may have navigating information.



Screen Readers

Who uses them?

People who live with disabilities

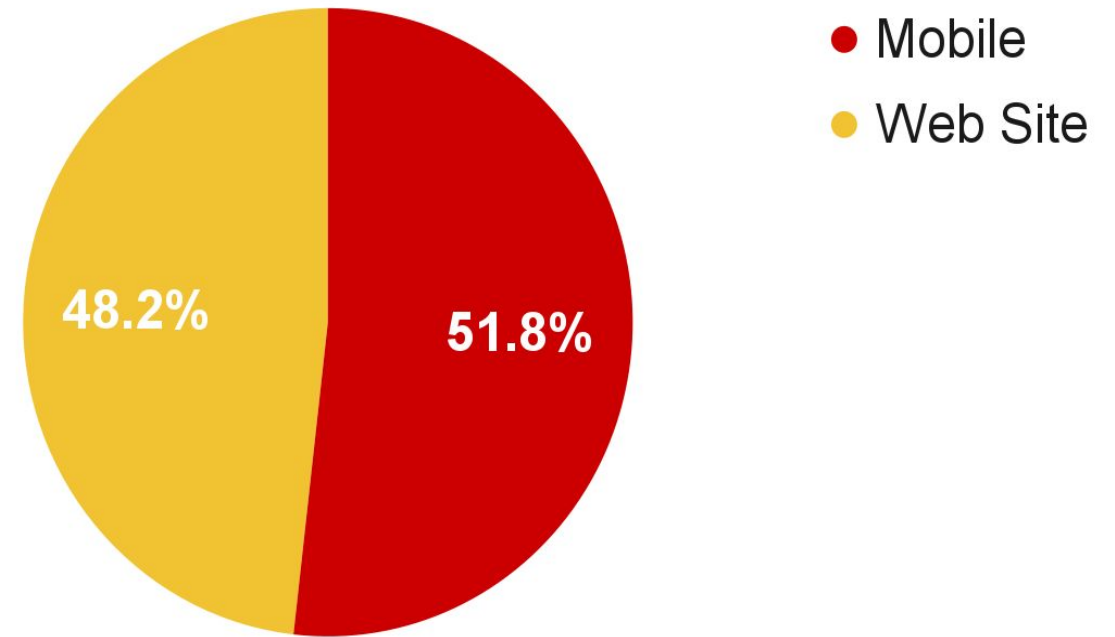


<https://webaim.org/projects/screenreadersurvey8/>

Screen Readers

Mobile vs. Web

Mobile App vs Web Site Usage



Accessibility is possible



“Why sometimes I’ve believed as many as 6 impossible things before breakfast.”



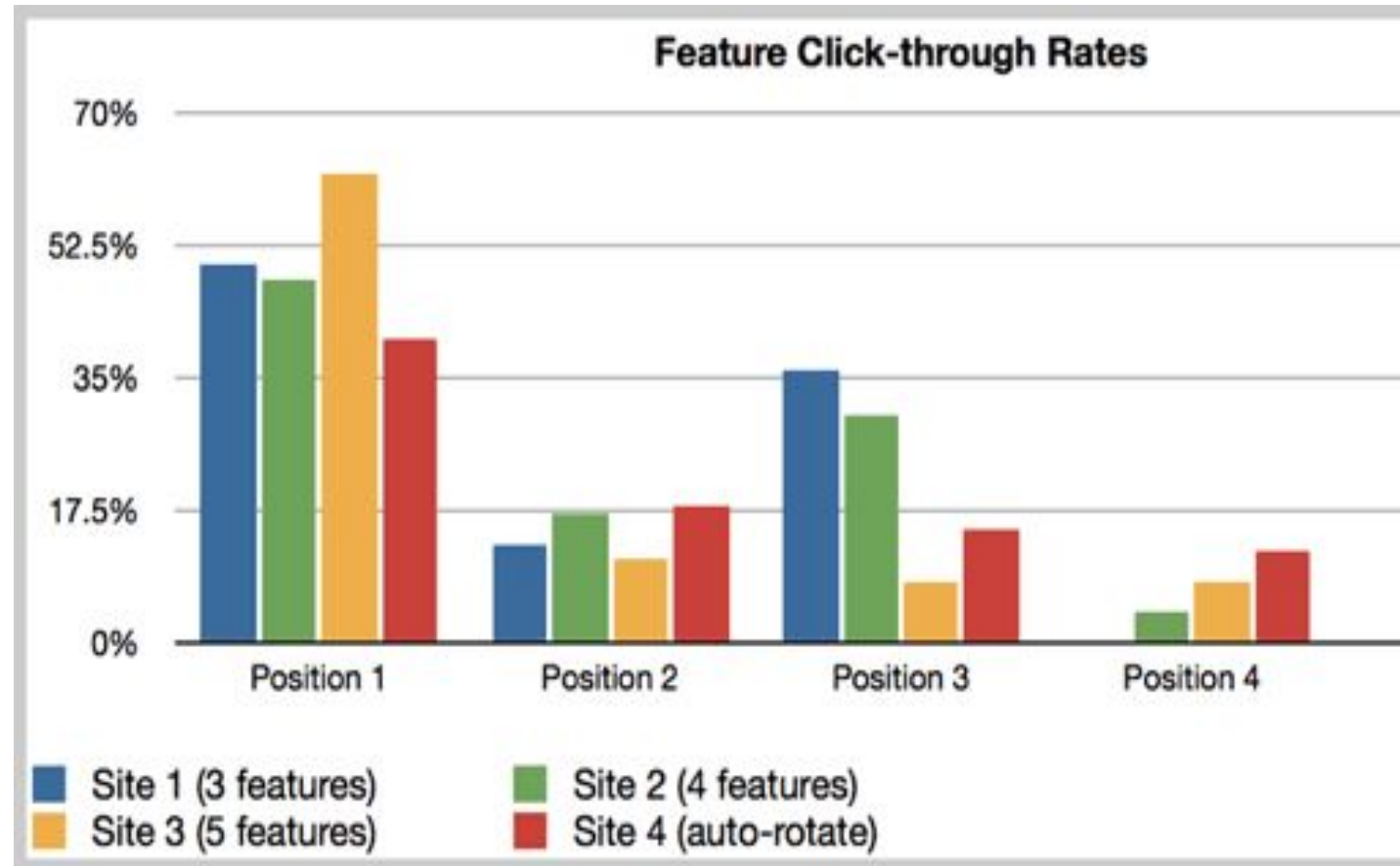
—
The White Queen
Wonderland

Slideshows

First rule of slideshows is not to use slideshows

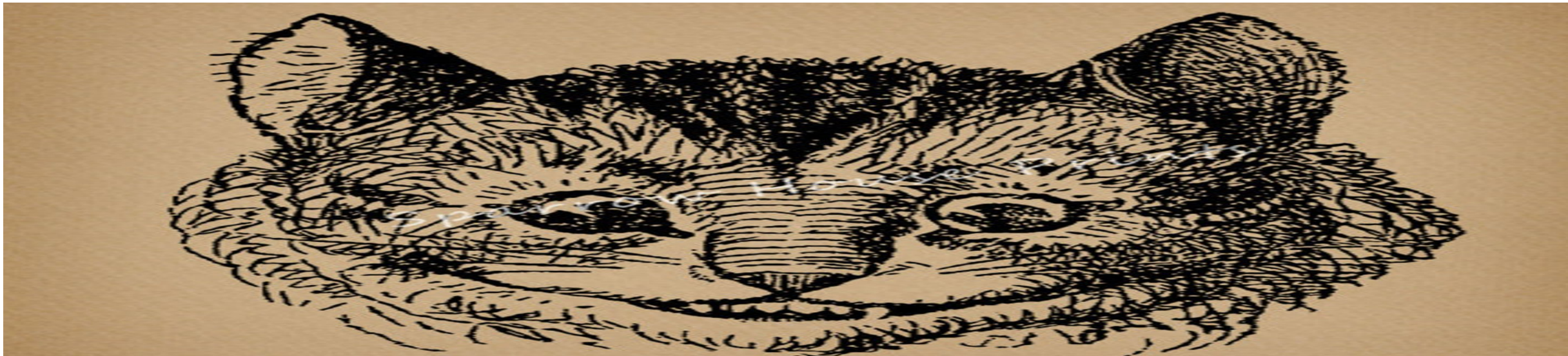
Slideshows

What really is the ROI?



Basic Slideshow Components

- ▶ **Slide**
A single content container within a set of content containers.
- ▶ **Rotation Control**
An interactive element that stops and starts automatic slide rotation.
- ▶ **Next Slide Control**
An interactive element, often styled as an arrow, that displays the next slide in the rotation sequence.
- ▶ **Previous Slide Control**
An interactive element, often styled as an arrow, that displays the previous slide in the rotation sequence.
- ▶ **Slide Picker Controls**
A group of elements, often styled as small dots, that enable the user to pick a specific slide in the rotation sequence to display.



prev

pause

next

Types of slideshows

1

Basic

Has rotation, previous slide, and next slide controls but no slide picker controls.

2

Tabbed

Has basic controls plus a single tab stop for slide picker controls implemented using the tabs pattern.





Types of slideshows

1

Basic

Has rotation, previous slide, and next slide controls but no slide picker controls.

2

Tabbed

Has basic controls plus a single tab stop for slide picker controls implemented using the tabs pattern.

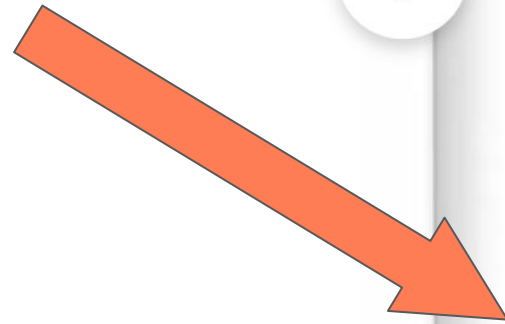
3

Grouped

Has basic controls plus a series of tab stops in a group of slide picker controls where each control implements the button pattern.

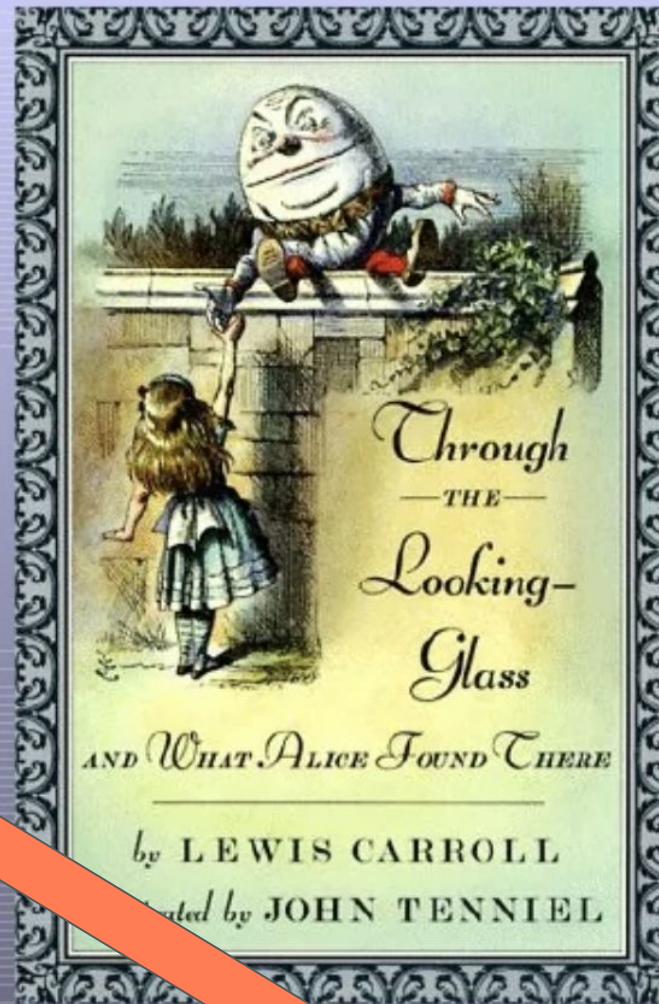
Slide

A single container within a set of containers.



Next and Previous Slide Control

An interactive element that displays the next/previous slide in the sequence.



- In 1871 Dodgson published a new book about Alice, titled *Through the Looking Glass and What Alice Found There*. Apparently the book was another conversation with Alice Liddell, where they discussed what it might be like to enter the reflected world in a mirror. This second book was as successful as the first.



6 of 31



Cultural Studies

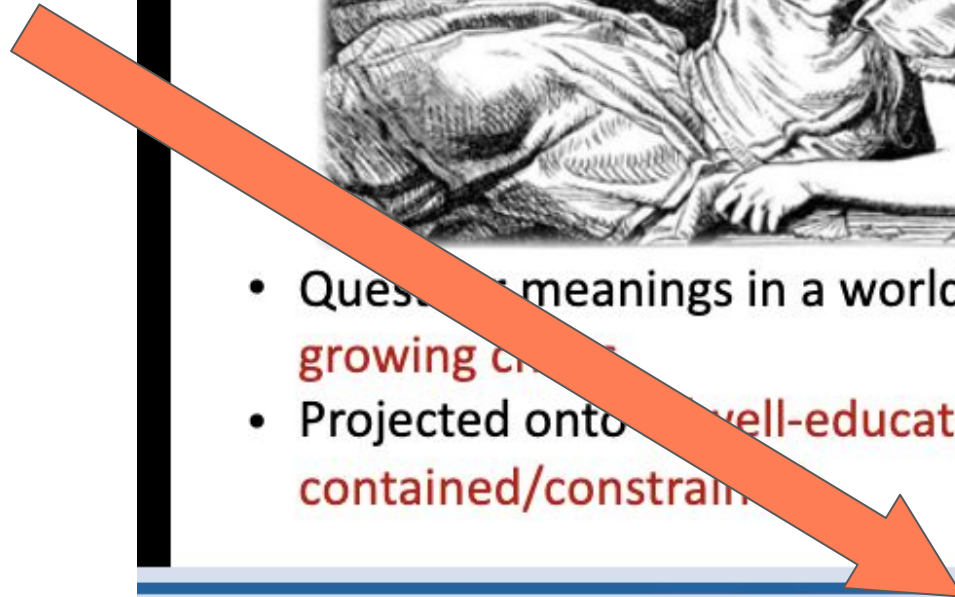


- Question meanings in a world of nonsense, rapid changes and growing complexity
- Projected onto (well-educated) girl who's grown too large to be contained/constrained



Rotation Control

An interactive element that stops and starts automatic slide rotation.



Slide Picker Controls

A group of elements that enable the user to pick a specific slide in the rotation.



WCAG

Guideline 2.1 Keyboard Accessible:

Make all functionality available from a keyboard.

Specific success criteria:

- ▶ 2.1.1 Keyboard (Level A)
- ▶ 2.1.2 No Keyboard Trap (Level A)
- ▶ 2.1.3 Keyboard (No Exception) (Level AAA)

This success criteria benefits:

- ▶ People who are blind
- ▶ People with low vision
- ▶ Some people with hand tremors

WCAG

Guideline 2.3 Seizures:

Do not design content in a way that is known to cause seizures.

Specific success criteria:

- ▶ 2.3.1 Three Flashes or Below Threshold (Level A)
- ▶ 2.3.2 Three Flashes (Level AAA)

This success criteria benefits:

- ▶ Individuals who have seizures
- ▶ Individuals who live with VIMS
- ▶ Individuals with photosensitive epilepsy

WCAG

Guideline 2.4 Navigable:

Provide ways to help users navigate, find content, and determine where they are.

Specific success criteria:

- ▶ 2.4.3 Focus Order (Level A)
- ▶ 2.4.7 Focus Visible (Level AA)

This success criteria benefits:

- ▶ Individuals with mobility impairments
- ▶ Individuals who live with visual impairments
- ▶ Individuals with with disabilities that make reading difficult
- ▶ Anyone who relies on the keyboard

WCAG

Guideline 2.5.5 Target Size:

Interactive elements must be to easily activate.

Specific success criteria:

- ▶ 2.5.5 Target Size (Level AAA)

This success criteria benefits:

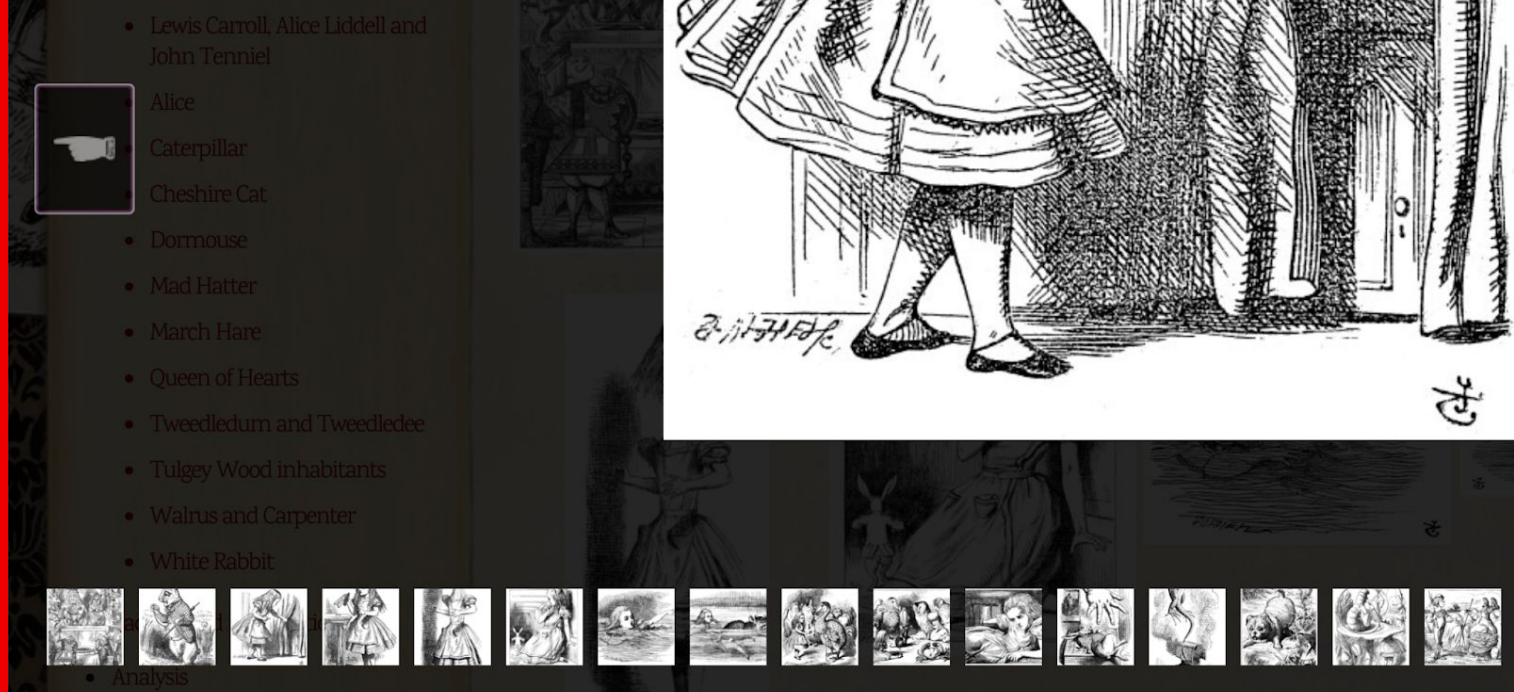
- ▶ Mobile device users
- ▶ Folks only using one hand or who have tremors
- ▶ People with large fingers
- ▶ Shaky environments
- ▶ Users with low vision

Slideshows

Let's break it down again

Slideshows

Accessible controls



Must haves for slideshows:

- ▶ Provide the ability to turn off the player
- ▶ Ensure controls accessible to the keyboard, mouse and touch
- ▶ Provide generous touch targets

Slideshows

Color contrast



Must haves for slideshows:

- ▶ Make sure the controls are visible
- ▶ Backgrounds changes
- ▶ Be sure the controls are highlighted on focus

Slideshows

Accessible images



Must haves for slideshows:

- ▶ Ensure there is a reasonable alternative to the slideshow. in HTML with CSS
- ▶ Content needs to be available when stylesheets are disabled

More Tips

The more you know...

Ways to increase slideshow accessibility...

- ▶ Screen reader announcement of slide changes
- ▶ Display Carousel controls and captions above and below the image rather than on the image
- ▶ CSS: prefers-reduced-motion
- ▶ Train content authors on alt text best practices



Images



Why do we love images?

- ▶ Enhancing content
- ▶ Cues for orientation
- ▶ More likely to click on content



Image Success Criteria

WCAG

Success criteria around images

Specific success criteria:

- ▶ 1.1.1 Non-text Content (Level A)
- ▶ 1.4.5 Images of Text (Level AA)
- ▶ 1.4.9 Images of Text (No Exception) (Level AAA)

This success criteria benefits:

- ▶ People who are blind or low vision
- ▶ People using AT (screen readers, mobile phones)
- ▶ People who have difficulty perceiving visual content
- ▶ Search Engine Optimization

Types of Images

Simple

The image conveys simple information (e.g., a photograph, icon, or logo)

Complex

The image conveys complex information (e.g., a chart or graph)

Decorative

The image is purely decorative, not informative

Images of Text

Images of text display text that is intended to be read

Groups of Images

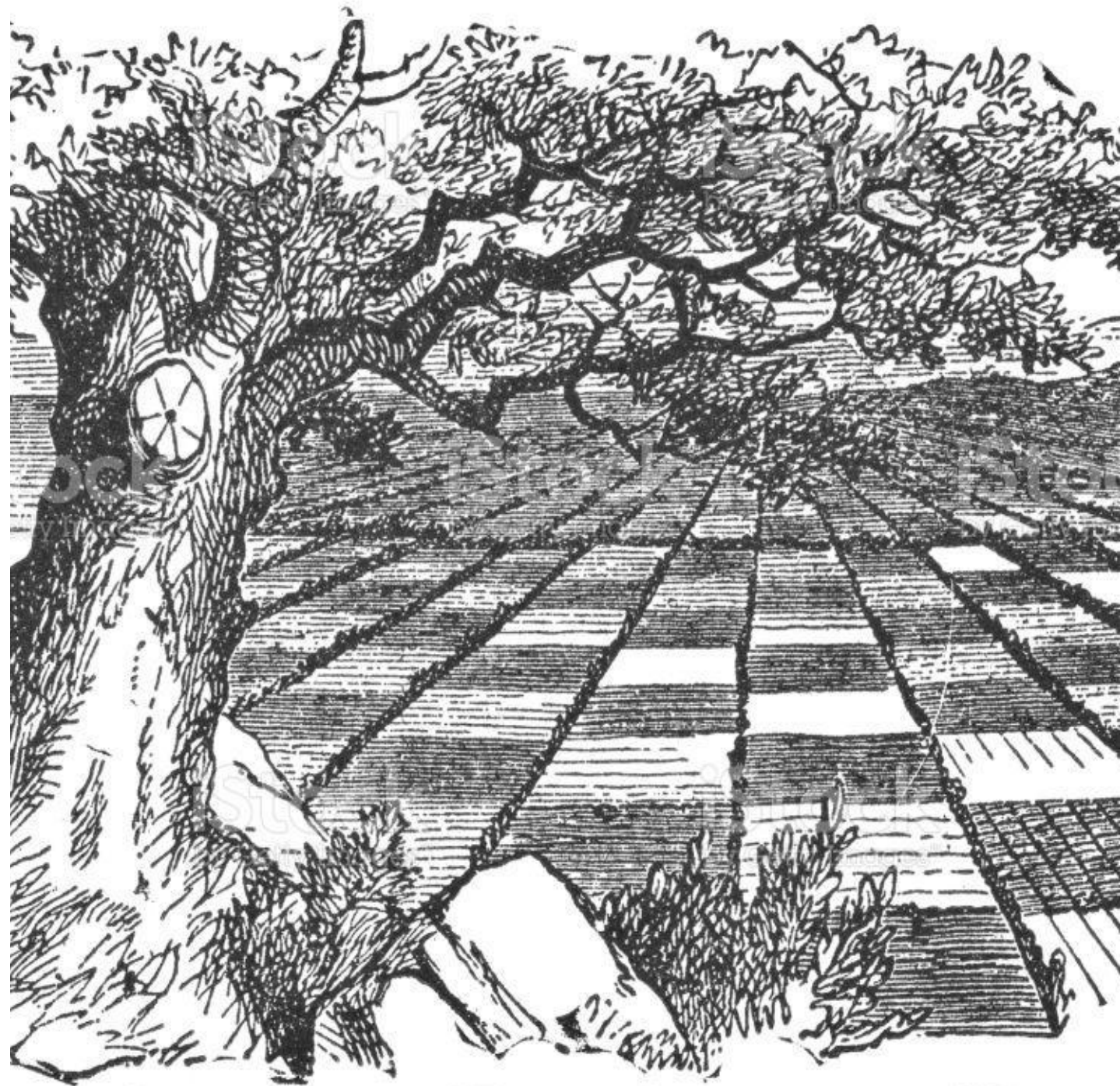
The text alternative for one image should convey the information for the entire group

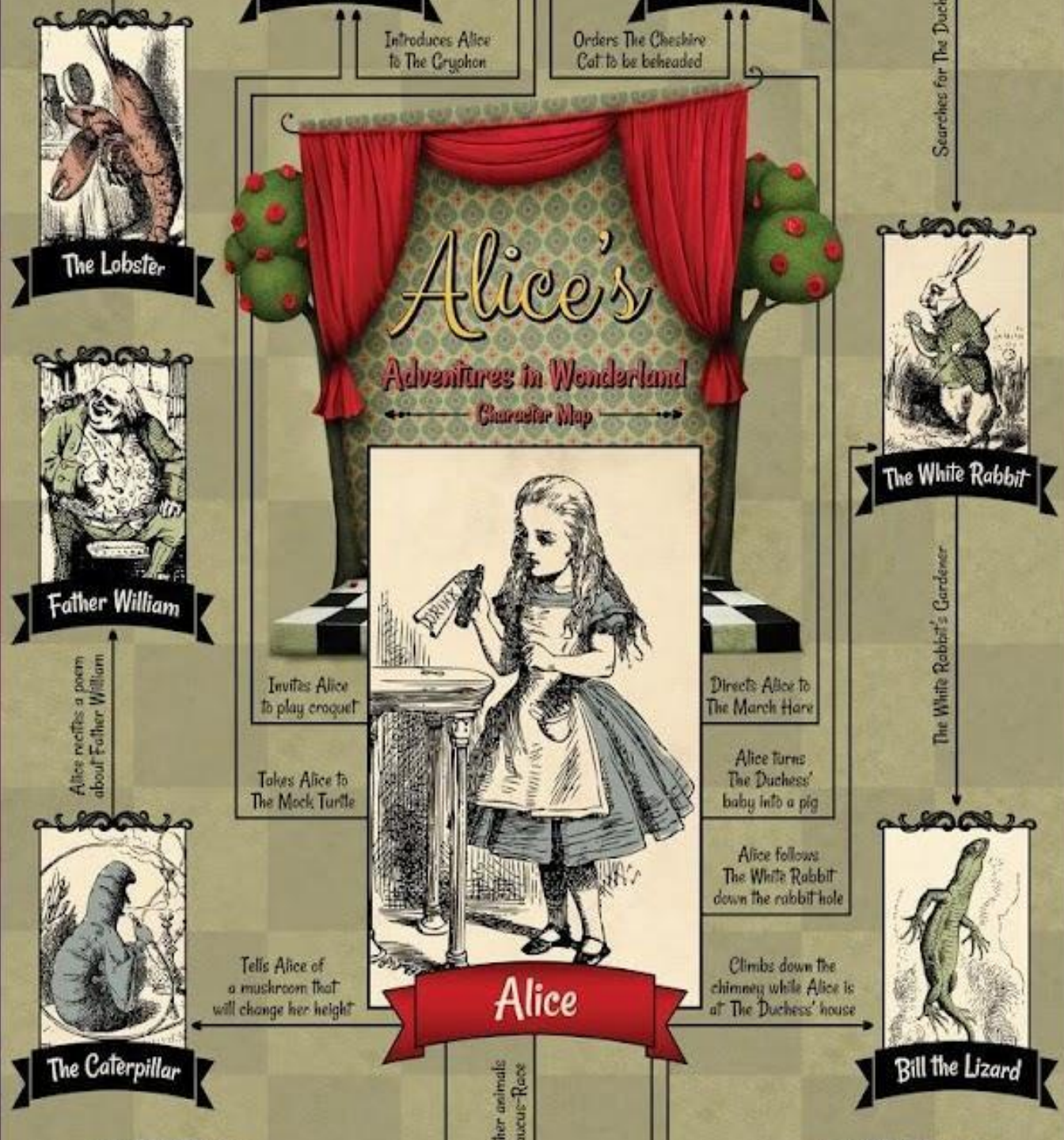
Image Maps

An image that contains multiple clickable areas

Simple Image

The image conveys simple information (e.g., a photograph, icon, or logo)





Complex Image

The image conveys complex information (e.g., a chart or graph)

Decorative Image

The image is purely decorative, not
informative





Images of Text

Images of text display text that is intended to be read

Groups of Images

The text alternative for one image should convey the information for the entire group





Image Maps

An image that contains multiple clickable areas



Media Players



When choosing how to deliver your content, it is important to consider options that are fully accessible.



- Can the media player's buttons and controls be operated without a mouse?
- Can users of assistive technology distinguish between controls?
- Can it be used across platforms and in all major browsers?

Lessons we
Learned
Down the
Rabbit Hole



Not all descriptions are created equal

Clarify the purpose of the image.





It's not about special privileges

It's about making sure there are no barriers in the first place.

Elements should not be subject to a time limit

Allow users to use media at their pace.





Build it right from the start

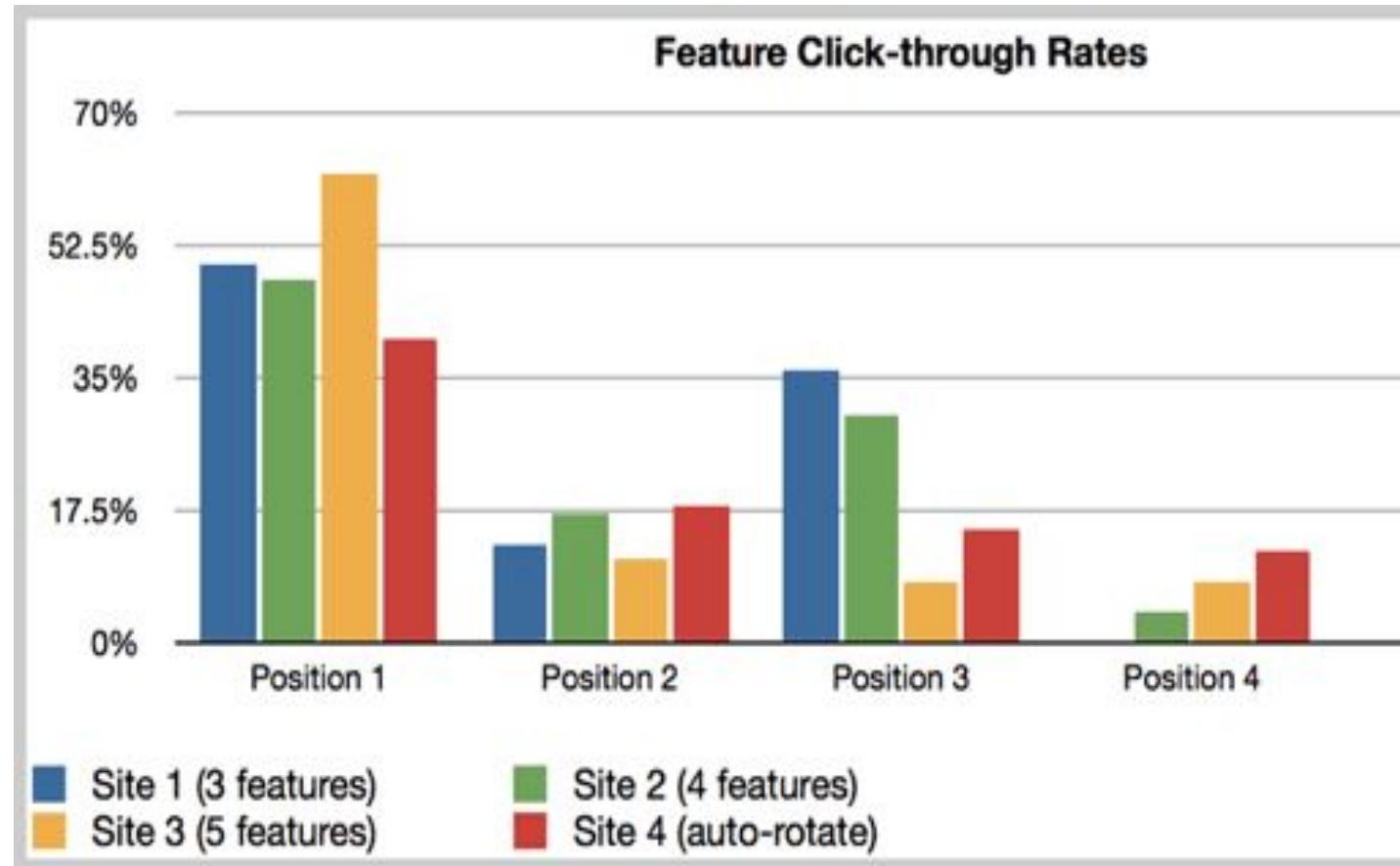
Make accessibility and inclusion a priority.

Slideshows

First rule of slideshows is not to use slideshows

Slideshows

What is your ROI really?



The King of Hearts didn't quite get it right....
Accessibility is a moving target...



“Begin at the beginning and go on till you come to the end: then stop.”

—
The King of Hearts
Wonderland

Now what?



"FOLLOW
THE
WHITE
RABBIT"



Work with your team

Utilize everyone's skillset

Communication is key...

- ▶ Set up style guides and stylesheets
- ▶ Train content authors on alt text best practices
- ▶ Remember that accessibility is a moving target
- ▶ Test for accessibility

Questions?

I'm a Pantheon Hero

I advocate for the growth, education,
and advancement of the Open Web
and Pantheon

Learn more about what it takes to be a
Hero below:
<https://community.pantheon.io>



Links for additional resources

[Auto-Rotating Image Carousel Example](#)

[Carousel \(based on a tabpanel\)](#)

[A Content Slider](#)

[WAI-ARIA Authoring Practices 1.1](#)

[Carousel Interaction Stats](#)

[Do Rotating Sliders Help or Hurt Your Website?](#)

[\[Research Roundup\]](#)

Tool Links

[WAVE tool](#)

[SiteImprove Browser Extension](#)

[Totally](#)

[aXe tools](#)

[Lighthouse](#)

[Contrast Analyser](#)