

Accessible Documents

The end-user experience

Presenters

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What we will cover today

- Typical Accessibility Barriers
- P.O.U.R. Principles of Digital Accessibility
- Live examples of Good vs Bad Accessibility
- Why accessibility is important

Before we start...

- Word, Excel, PowerPoint, PDF, HTML, etc. are all capable of producing accessible documents.
- Most of the accessibility barriers are a result of not following best practices for accessibility (or not using the right tool for the job)
 - Microsoft has online tips for creating accessible documents (<https://bit.ly/3RunLyA>)
- The core concepts of the Web Content Accessibility Guidelines (WCAG) apply to all electronic documents.

Rather than looking for ways to overcome accessibility barriers, we should not be placing barriers in the first place.

- Whitney Quesenbery author of “A Web for Everyone”

Typical barriers we create

- Scanned documents, Print to PDF
- Images of text/ Word Art
- Form fields without labels/tooltips
- Font size, type, number of fonts used
- Poor/No Color Contrast
- Hard to understand (language and layout)
- No alt-text for images

Typical barriers we put in place (cont'd)

- Text over picture/image or busy animation
- Not keyboard accessible
- No closed captioning for video or audio files.
 - (audio described video)
- Complex tables, merged cells, tables for layout
- Text boxes for text placement
- No structure (Styles, Tags, etc.)

What is the (expected) user experience?

From the beginning, we should be thinking about:

- Who is my audience?
- How am I expecting them to use the information?
- How will users interact with the content?
- How will they navigate through the content?
- How will they be accessing the information?

Whose responsibility is it anyway?

Everyone!

We all play a part in ensuring the content we create is accessible to the widest range of user abilities.

From those writing the content, designing the layout, etc. What is the expected user journey?

POUR Principles

An accessible document is one that is:

- Perceivable
- Operable
- Understandable
- Robust

- Web Content Accessibility Guidelines (WCAG) 2.0

Perceivable

Can the information be perceived by users who may have limited or no use of:

- Sight
- Sound
- Touch?

Perceivable - Examples

- Videos must have closed captions for deaf or hard of hearing users.
- Images must have alternative text describing the image for visually-impaired users.
- Text must be actual text (not images)

Perceivable - Captions

Closed Captions vs Open Captions

- Closed captions can be turned on/off, resized, moved on the screen. They are separate from the video. Available to someone using a braille device.
- Open captions are “burned in” to the video. They are permanent. The user cannot control whether they appear or not, the color, size, font or placement. Not accessible to a braille device.

Perceivable – ALT Text for images

Monkeypox



[Español](#)



Monkeypox Signs and Symptoms

Know the symptoms of monkeypox and when to contact a healthcare professional.

Highlights

[Vaccine Administration Data](#)

[How to Prevent Monkeypox](#)

[Schools & Childcare](#)

[Sexual Health](#)

[U.S. Map and Case Count](#)

Perceivable – No Alt Text = Not Perceivable



Monkeypox



[Español](#)

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Perceivable – ALT Text replaces the image

The screenshot shows the CDC website page for Monkeypox. At the top left is the CDC logo with the text "Centers for Disease Control and Prevention" and "CDC 24/7: Saving Lives, Protecting People™". At the top right is a search bar with the text "Search" and a magnifying glass icon, with a link to "Advanced Search" below it. Below the search bar is a blue header with the text "Monkeypox". To the right of the header are social media icons for Facebook, Twitter, LinkedIn, and YouTube. Below the header is a language selector for "Español". The main content area has a heading "Monkeypox Signs and Symptoms" and a sub-heading "Know the symptoms of monkeypox and when to contact a healthcare professional." Below this is a blue button that says "Learn about Signs and Symptoms". To the right of the main content is a sidebar titled "Highlights" with a list of links: "Vaccine Administration Data", "How to Prevent Monkeypox", "Schools & Childcare", "Sexual Health", "U.S. Map and Case Count", and "Pediatric Considerations".

Operable

The user interface, navigation, and interactive components of your document must be able to be used by everyone, including people who do not navigate documents using a standard keyboard and mouse.

People with motor disabilities, quadriplegia, blindness, or even extreme cases of arthritis cannot use a mouse to click through documents and websites.

Operable - Examples

- Can interactive elements (form fields, links, buttons, etc.) be accessed by the keyboard?
- Can users efficiently navigate through your document with or without assistive technology?
- Can users zoom in/enlarge text?
 - Without affecting the readability?

Operable – Keyboard Access

(Can I get to the content from the keyboard?)

The screenshot shows a website header with the TPGi logo (callout 2) and a search bar (callouts 3 and 4). Navigation links include 'Free ARC Account' (5), 'Login' (6), and 'Contact' (7). A main menu contains 'ARC Platform' (8), 'Solutions' (9), 'Resources' (10), 'About' (11), and 'Blog' (12), followed by a 'Get Started' button (13). A breadcrumb trail shows 'Home' (14), 'Blog Overview' (15), 'Events' (16), and 'Live Events' (17), leading to the current page: 'Webinar, September 21 at 12pm ET: Digital Accessibility – Ask Me Anything (AMA)'. The main content area features a webinar announcement for 'Digital Accessibility – Ask Me Anything (AMA)' presented on September 21, 2022, at 12pm ET, by Mark Miller. A registration form on the right includes fields for 'First Name *' (19), 'Last Name *' (20), and 'Email *' (21).

Understandable

The information presented (and how to use it) is clear to all users. Layout and formatting is consistent and predictable

Understandable - Examples

- Appropriately targeted language and reading level (typically at 8th- or 9th-grade reading level if writing for the general public).
- Consistent font styles (family, colors, and sizing)
- A well-thought-out and easy to use structure (navigation)
- Important information does not rely on color alone
- Form fields, links and buttons are clearly labeled

Understandable – What's the function? (and Info/Relationship)

ANDI focusable elements tab order title attributes label tags

Element: `<input type="text">`

Accessibility Components: 3

- Label: First Name
- aria-invalid: true
- aria-required: true

ANDI Output:

First Name invalid entry, required

1. Is the element accessible from the keyboard (can I get to it)?

2. Is the form field, link, button labeled in a way that the user knows what to enter, where the link will take them, or what action the button will perform?

Register for the webinar below

Digital Accessibility – Ask Me Anything (AMA)

`<label for=6311ff9fbef9dc-firstname>`

First Name *

`</label>` 19

`<label for=6311ff9fbef9dc-lastname>`

Last Name *

`</label>` 20

Understandable – Use of Color...

(Don't use color alone to convey meaning)

Items in **RED** are required

Name **Date**

Email **Phone**

Address

Simulation - Deuteranomalous... - - □ ×

Items in **RED** are required

Name **Date**

Email **Phone**

Address

Simulation - Deuteranomalous 80% severity - - □ ×

*** required**

*** Name** *** Date**

Email **Phone**

*** Address**

Understandable – Plain Language

Plain Writing Act (2010)

Writing that is clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience.

Can users:

- Find what they need
- Understand what they find the first time they read or hear it
- Use what they find to meet their needs

Understandable – Tables

Example of a complex table

2023 Monthly Premiums and Contributions

Non-Tobacco User Rates: Completing LivingWell Promise Rates

All employee contributions are per employee, per month.

LivingWell CDHP

Single	Total Premium	\$750.30	Employer Contribution	\$696.84	Employee Contribution	\$53.46
Parent-Plus	Total Premium	\$1,036.40	Employer Contribution	\$899.34	Employee Contribution	\$137.06
Couple	Total Premium	\$1,453.30	Employer Contribution	\$1,113.96	Employee Contribution	\$339.34
Family	Total Premium	\$1,623.94	Employer Contribution	\$1,225.02	Employee Contribution	\$398.92
Family Cross-Reference	Total Premium	\$866.72	Employer Contribution	\$779.82	Employee Contribution	\$86.90

Understandable – Tables

Example of a simplified accessible table

2023 Monthly Premiums and Contributions

Non-Tobacco User Rates: Completing LivingWell Promise Rates

All employee contributions are per employee, per month.

LivingWell CDHP	Total Premium	Employer Contribution	Employee Contribution
Single	\$750.30	\$696.84	\$53.46
Parent-Plus	\$1,036.40	\$899.34	\$137.06
Couple	\$1,453.30	\$1,113.96	\$339.34
Family	\$1,623.94	\$1,225.02	\$398.92
Family Cross-Reference	\$866.72	\$779.82	\$86.90

Robust

- Can be accessed reliably on a variety of devices (including AT).
- As technologies advance, content maintains accessibility.
- Multiple ways to navigate (Headings, Bookmarks, Table of Contents, etc.)

Robust – Multiple Ways

The screenshot shows a Microsoft Word document with the following content:

What is an Accessible Document and Why is it Important?

The goal of accessible Information and Communication Technologies (ICT) is to provide equal access to digital information so that we can all be active participants in today's digital society. It's about equality and inclusion.

Accessible documents of all types (Word processing, Spreadsheets, Slideshows, PDF, HTML, and more) are better for everyone, whether they have a disability or not, or whether they use Assistive Technology (AT) or not. Accessible documents are easier to find, search, read and maintain.

Regardless of the type of document, accessibility is defined by four basic, key characteristics: Perceivable, Operable, Understandable, and Robust (often referred to as the P.O.U.R. Principles). The P.O.U.R. Principles are based on the Web Content

The left sidebar shows a navigation pane with the following structure:

- Search document
- Headings
- Pages
- Results
- What is an Accessible Document an...
 - What are the P.O.U.R. Principles
 - Perceivable
 - Operable
 - Understandable
 - Robust
 - How can I make my documents...
 1. Use a clear and descriptive f...
 2. Give your document a Title...
 3. Use Styles to create a logical...
 4. Provide ALT text description...
 5. Provide Closed Captions an...
 6. Use clear and understandab...
 7. Avoid using hard returns to...
 8. Write in a clear and simple...
 9. Fonts
 10. Use Color Sparingly

What is the take-away?

If any of these four principles do not work, then users may not be able to:

- access your information,
- interact with your content
- complete the tasks you are asking them to do,
- What else?

Why is accessibility important?

- Accessible content means that all users can perceive, understand, navigate, and interact with the information
 - can be active, contributing members of the digital world.
- Visual, auditory, physical, speech, cognitive, and neurological disabilities should all be considered when implementing accessibility measures.

Accessible documents benefit everyone!

- When content is created with an accessibility first approach, the user experience is improved for everyone, with or without a disability.
- Well-designed, accessible digital content allows a greater variety of individuals to obtain information regardless of their individual needs.
- **It's about inclusion! Don't leave anyone out!**

Accessible Design is Proactive

Reactive:

- Accessibility as a final step in the process,

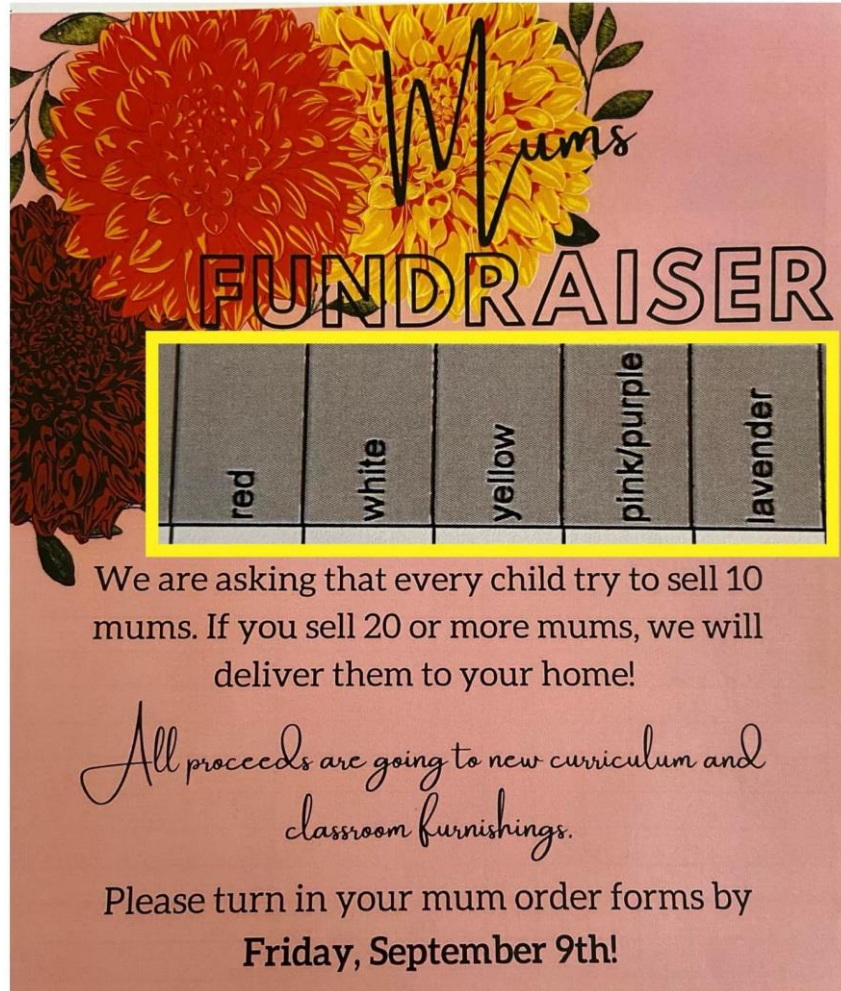
Proactive:

- Accessibility First approach,
 - Not building barriers in the first place

User Experience

Let's Walk Through a Document

What about...?



Mums
FUNDRAISER

red	white	yellow	pink/purple	lavender
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We are asking that every child try to sell 10 mums. If you sell 20 or more mums, we will deliver them to your home!

All proceeds are going to new curriculum and classroom furnishings.

Please turn in your mum order forms by
Friday, September 9th!

Inaccessible Document

Live Example(s)

Live Examples of Inaccessible Documents

At this time, we are going to switch to looking at some live examples, and discuss the barriers present based on the POUR principles we have discussed.

Accessible Document

Live Example(s)

Live Examples of Accessible Documents

At this time, we are going to switch to looking at some live examples, and discuss how considering the POUR principles we have discussed benefit all users.

Questions?