Introduction to Infographics and Email Accessibility
• **Understand**
  • Accessibility best practices
  • Where to get more information

• **Be able to**
  • Conduct a four-point accessibility evaluation

• **Communicate**
  • Provide equal access to information and communications
Accessibility is not about disability; it’s actually about *ability*. It’s about making it easy for everyone.
Understanding Accessibility...

**VISION**
- Low vision, blind, color blind, etc.
- Screen readers
- Braille display
- High contrast settings
- Magnifiers

**HEARING**
- Deaf, hard of hearing, noisy environment
- Sign language
- Captions/Subtitles
- Transcripts

**MOBILITY**
- Muscular dystrophy, arthritis, injury, etc.
- Keyboard only
- Speech to text

**COGNITIVE**
- Learning disability, dyslexia, ADHD, etc.
- Digital content layout
- Information organization
Accessibility (A11y)
Digital accessibility content may be read by:

- Screen Readers
- Magnification Software
- Speech Recognition
- Other assistive technology
What are Screen Readers

Screen readers are a form of assistive technology (AT) software that enables access to a computer, and all the things a computer does, by attempting to identify and interpret what is being displayed on the computer screen using text-to-speech.

Normally used by someone who is visually impaired.
Types of screen readers

Screen reader program for Microsoft Windows that allows blind and visually impaired users to read the screen either with a text-to-speech output or by a refreshable Braille display.

Provides auditory descriptions of each onscreen element using gestures, a keyboard, or a braille display.

Adds spoken, audible, and vibration feedback to your device.

Screen magnifier for Microsoft Windows that allows you to see and hear everything on the computer.

Want to learn about Screen Readers? UDC and DRES offer Screen Readers training and demo.
Benefits of using a screen reader

- **provides access** to someone who does not have useful vision, mobility or has a learning disability to access text on the screen

- offers same level of **independence** and privacy as anyone else
Infographics, Flyers and Emails

**IS MY EMAIL ACCESSIBLE?**

Creating accessible email content not only provides access to people with disabilities, it also improves the overall readability of the email content.

**Text**
- Text should be clear and easy to read
- Avoid difficult fonts
- Ensure there is enough contrast between the foreground color and background color

**Content Organization**
- Use headings to organize content by category or topic.
- Use list to organize information by ideas or processes

**Images**
- Images that convey important information require a text alternative that describes the image

**Links**
- Link text must be descriptive
- DO NOT use link text such as “Read More,” “Click here,” etc.
- Best practice is to bold or underline links
- Do not use color as the only method to convey important information

To learn about accessible emails read more.

Visit the accessible emails page to learn more.
What are infographics?
- Use pictures to represent words, freestyle design
- An image is worth a thousand words
- Group information by colors
- Cluster information in a static order
- Use extreme color contrast

What are the challenges with creating infographics?
- Text is not recognized
- Layers may interfere with tagging of infographics
Accessible Technology/Universal Design Principles

The POUR principles support foundational considerations for accessibility.

- **Perceivable**: so that individuals with visual impairments can understand the information being conveyed
- **Operable**: navigate to information in multiple methods (not only the mouse)
- **Understandable**: understandable enough so that all different learning styles can engage
- **Robust**: IT products should be compatible with a user’s desired technologies or system preferences
When creating an infographic, designers should always consider the following accessibility best practices:

- Format
- Text display
- Images
- Links
- Color contrast
- Structure
- Mobile display
- Forwarding emails

Learn more about Infographics Best Practices
Infographic Format

• Image
  • Requires a transcript (text alternative)
    • Display below or next to the infographic
    • Link to the transcript (to an accessible file or web page)
    • Hidden (accessibly) in the web page or file containing the infographic
      • Web-One custom elements

• HTML and CSS
  • Follow web best practices

• PDF
  • Follow PDF best practices
Infographic Format: Image

The problem with flyers and infographics are generally published on event pages as image files where all text and hyperlinks are part of the image. Screen readers and other assistive technologies can’t convert images into words/texts.

Best Practices

Requires a transcript (text alternative)
- Display below or next to the infographic
- Link to the transcript (to an accessible file or web page)
- Hidden (accessibly) in the web page or file containing the infographic
- Web-One custom elements

Adding flyers & infographics to Calendar Event
Infographic Format: HTML & CSS

Best Practices

1. Enter all of the event information into the Web-One post.

2. If the flyer is an image, add descriptive text display below the infographic.
   `<img alt="" src=""........."" />

3. Add descriptive link text (avoid generic phrases like “read more”, “click here”, “next page”)

4. Descriptive text benefit users to use 3rd party language translation tools/app.

Adding flyers & infographics to Calendar Event
Infographic Format: PDF

Embedding a PDF format of an infographic or flyer is also an excellent alternative. However, when adding links to PDF’s on the web, content creators must ensure the PDF document adheres to all PDF accessibility requirements.

Best Practices
• Accessibility markup (tags)
• Structure that can easily read by screen readers
• Selectable text
• Sharable and consistent across platforms (mac, pc, mobile, tablet)

Adding flyers & infographics to Calendar Event
**Software client**

**Outlook**
- Plain text
  - No structure but widely compatible
- Rich text
  - Follow Word best practices
  - Not compatible with every client
- HTML
  - Follow web best practices

-Outlook 2013 and 2016: Creating Accessible Emails-

**Web/browser**

- Gmail, Yahoo, etc.
- Email Marketing
  - MailChimp
  - Campaign Monitor
  - Etc.
Clear and easy to read and understand
Avoid using difficult-to-read fonts and small text
Divide large blocks of text into smaller sections
Avoid overly complex sentences
Provide adequate whitespace
San-serif font (Arial, Calibri, Tahoma, Verdana, etc.)
How might this image appear to a person who has a visual challenge?

Normal vision

Low vision

Color blindness

Blind or deaf-blind

Solution?

Universal Design Center

csun.edu/udc
Alternative or Alt Text

• A written description of images and/or objects that can be read by a blind or low vision using screen reader technology.

• Screen readers and other assistive technologies can’t convert images into words/texts.

• Captions are universal and accessible for everyone.

• “Image of…”, “photo of…” is not needed.

• Be brief and descriptive text within 8 to 80 characters long

Tiny turtle eating a ripe strawberry.
Links

• Check every link before sending.

• Use descriptive link text, not URLs.
  • *Always* in emails; *usually* in documents like infographics.

• Link text should clearly identify the target of each link. Good link text should not be overly general.
  • Do not use *click here* or *read more* or *continue*.
  • Do not use different *link text* to refer to the *same* resource.
  • Do not to use the same *link text* to refer to *different* resources.

*When the same link is repeated (imagine hearing "click here, click here, click here" repeated multiple times) it creates chaos and confusion for users. They need to understand where the link goes and why they should click here? Descriptive links provide this context.*
Can a screen reader read color contrast?
## Meaning Without Color

<table>
<thead>
<tr>
<th>Production</th>
<th>Wood</th>
<th>Reinforced concrete</th>
<th>Steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw material</td>
<td>renewable</td>
<td>mineral</td>
<td>mineral/recycled</td>
</tr>
<tr>
<td>Primary energy, non-renewable [MJ]</td>
<td>185,0</td>
<td>118,4</td>
<td>835,4</td>
</tr>
<tr>
<td>Green house potential [kg CO₂-aqv.]</td>
<td>-52,4</td>
<td>17,2</td>
<td>60,6</td>
</tr>
<tr>
<td>End of Life</td>
<td>Entsorgung</td>
<td>recycling / utilisation / landfilling</td>
<td>recycling</td>
</tr>
<tr>
<td></td>
<td>mat./therm. utilisation</td>
<td></td>
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### Meaning without Color

color vs black & white

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- Color is **not** the sole means of conveying important information (i.e. avoid color-coding)
- Use color with **pattern fill** to provide accessible version ([Charts & Accessibility by Penn State](http://csun.edu/udc))
Not Accessible – Color Coding
Accessible - Pattern Fill

Chart Title

Category 1
Category 2
Category 3
Category 4

Series 1
Series 2
Series 3

Universal Design Center

csun.edu/udc
Color

• The colors or shades used in the flyer/infographic makes the content readable.

• Color must not be the only method used to distinguish or emphasize important text or links. This will cause barriers for readers with color vision deficiencies and prevent them identifying important information.

• Good color contrast between the foreground and background content.

• Good color contrast between the text color and background color.
Use the Colour Contrast Analyser to ensure accessible contrast

Coblis Color Blindness Simulator
Structure

An infographic must always have a logical structure that includes titles and heading levels

- **Headings**: Heading 1, 2, 3, etc., or `<h1>`, `<h2>`, `<h3>`, etc.
- **Lists**: bullets, numbered, outline
- **Strong** `<strong>` is the new bold
- **Emphasis** `<em>` is the new italic

Organize content with descriptive title, headings, subheadings, lists, images, and footer are important for usability and accessibility.
Consider Reading Order

The reading order defines how a flyer/infographic will be read by screen readers. The reading order should always match the visual order of the page. If incorrect, the flyer/infographic will not be read correctly.
Mobile Display

Preview your email, flyer or infographic on one or more mobile devices. Avoid making large infographics as they cannot be properly displayed on mobile devices.

Best practices for infographic sizing

• When the flyer/infographic is zoomed in, the content resizes appropriately.

• The flyer/infographic is readable using a mobile device screen reader (Voiceover for iOS and Talkback for Android)

Credit by Visually Blog Designing Infographics for Mobile
Attachments

• Files attached to an email must also be accessible.
• Use a descriptive and distinct file name.
• Videos in emails must be captioned.

www.csun.edu/captioning
Forwarding Email

SUMMIT FOR GAY LATINO MALE COLLEGIANS

SATURDAY, FEBRUARY 17, 2018
10AM TO 4PM
USC UNIVERSITY PARK CAMPUS,
FERTITTA HALL 125 LL
LOS ANGELES, CA
Creating Accessible Email

Add alt text to an image in an email

1. Right-click the image, select **Format Shape**, select **Layout & Properties**, and then select **Alt text**.

2. Add a detailed description of the image, and why the image is important to your message.
Adding an image in Email Signature (Alt Text)

Outlook 2016

1. After adding Alt Text to an image, select the entire email signature to copy.

2. Open email signature box (File | Options | Mail | Signatures) then paste in signature box.

Outlook 365

1. Open email signature box (File | Options | Mail | Signatures).

2. Add an image, right-click to select Pictures then Alt Text tab.
<table>
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<tr>
<th>FONT</th>
<th>COLOR</th>
<th>TAB</th>
<th>ENLARGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is the font styling easy to read?</td>
<td>Is the font color easy to read?</td>
<td>Can a user “tab” through the functions?</td>
<td>Can a user make the font bigger? (ctrl +)</td>
</tr>
</tbody>
</table>
Resources

• Creating Accessible Infographics
• Flyers and Infographics in Calendar Events
• Infographics Checklist
• Web Accessibility Criteria
• Creating Accessible PDF Documents
• Creating Accessible Emails: Outlook 2013 & 2016
• Best practices for infographic sizing
• Charts & Accessibility by Penn State
You **CAN** make a big difference

Best education and resources available to **EVERYONE**

**providing ACCESSIBLE**

Make **one** design that fits everyone

- **Documents**
- **Website**
- **Media with captioning**
• Creating accessible digital content can’t happen overnight.
• Accessibility is for everyone.

How can we help you make a big difference