

Web Accessibility 101: What Do I Need to Know As a DESE Web Content Maintainer?

Agenda

- Web accessibility overview
- How to implement web accessibility
 1. Proper page structure
 2. Proper alternatives to images, complex images and decorative images
 3. Proper contrast/use of color
 4. Proper data table structure
 5. Iframes need titles
 6. Captions and Transcripts
 7. Properly structured downloadable documents (including demos)
- What next?
- Q & A

What is Web Accessibility?

“Development of information systems flexible enough to accommodate the needs of the broadest range of users... regardless of age or disability.”

[Cynthia Waddell](#)

WebAIM

Laws Affecting Web Accessibility

- Section 508 (1998)
- Web Content Accessibility Guidelines (WCAG) 2.0 (2008)
- Section 508 Refresh (going into effect as early as October 2016 –based of WCAG 2.0 A and AA compliance)

Major categories to consider

- **Vision**
Blindness, low vision, color-blindness
- **Hearing**
Deafness and hard-of-hearing
- **Motor**
Inability to use mouse, slow response time, limited fine motor skills
- **Cognitive**
Learning disabilities, distractibility, inability to remember or focus on large amounts of information

Fact

- Nearly 1 in 5 People Have a Disability in the U.S.
- About 56.7 million people

Assistive Technology

“Assistive technology promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing.”

[Wikipedia](#)

Myth or Fact

“Assistive technology are only used by the disabled community to access the web”

Do You Use Assistive Technology?



Myth or Fact

“Implementing accessibility serves only the disabled community.”

Who does accessibility serve?

“Not “people with disabilities.” Not “blind people and deaf people.” Not “people who have cognitive disabilities” or “men who are color blind” or “people with motor disabilities.” People. People who are using the web. People who are using what you’re building.”

-Anne Gibson, alistpart.com

And not just people...



- is blind...
- and deaf...
- and cannot use a mouse.

I have a general idea of what accessibility is...

- What should I look for?
- How do I implement it?
- Let's break it down into topics...

1. Proper Page Structure

Welcome to dese.mo.gov. We hope you enjoy the site, and we welcome your **feedback**.

Missouri
 DEPARTMENT OF ELEMENTARY & SECONDARY
EDUCATION

Home About Administrators Adults & Community Educators Parents & Students School Data

Communications ← **H1**

Home

News & Updates ← **H2**

Receive Notices From the Department ← **H3**

The Communications Office keeps you updated on important developments with the Missouri Department of Elementary and Secondary Education and of educational issues, events and achievements across the state. To receive news from the Department, please sign up to receive the Bulletin - Electronic Mailbag and other notices.

- **Bulletin - Electronic Mailbag**
- **Topic- and program-specific listservs**

- Use bulleted/ordered lists to organize content
 - Use descriptive text for links

Media Inquiries

The Communications Office is the central coordination point for all media inquiries. Recent news releases can be found on

Communications

- Electronic Mailbag
- Frequently Asked Questions and Educational Topics
- Listservs
- Logos & Guidance
- News Releases
- Media Production Services

Listservs

Home » Communications

Below are links for Department of Elementary and Secondary Education listservs. You may subscribe to these listservs to receive information about the following topics:

Adult Education & Literacy

Adult Education & Literacy - specific to

Bulletin - Electronic Mailbag

Business, Marketing and Information 1

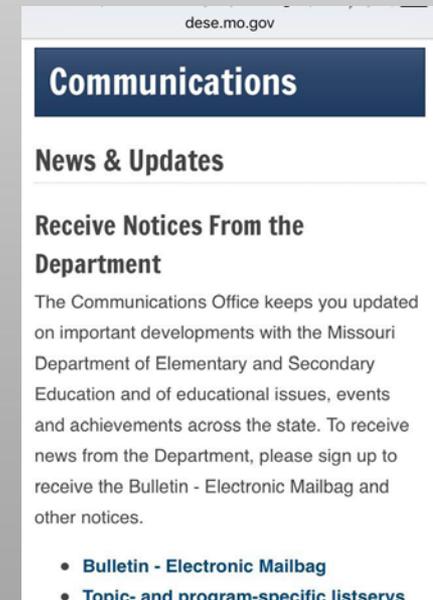
Curriculum

Example not using lists

1. Proper Page Structure

Cognitive/Learning Disabilities

- Be careful with movement and other distractions
- Avoid long line lengths
- Focus on important content
- Simplify
- Be consistent
- [Five ways that consistency matters](#)



2. Proper Alternatives to Images

- Read by screen readers
- Alternative to images when images are disabled or not supported
- Provides semantic meaning and description to images
- Used by search engines

2. Proper Alternatives to Images

What is **equivalent** alternative text?

- Image function (rarely is it a description)
- If you couldn't use a picture, what text would you put in its place?

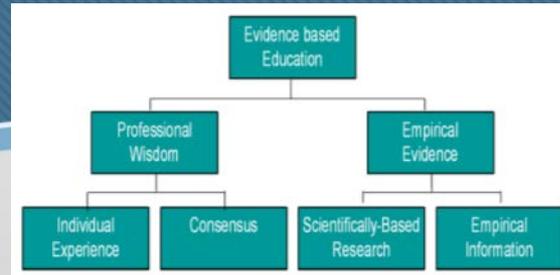
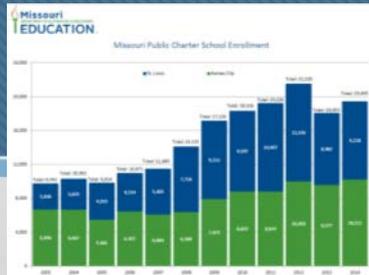
2. Proper Alternatives to Images



Should...

- Be accurate, equivalent and brief/to the point.
- NOT be redundant.
- NOT use the phrases "image of ..." or "graphic of ..." to describe the image.
- Always include alt text if a linked image
- 125 characters or less
- Do not use title property

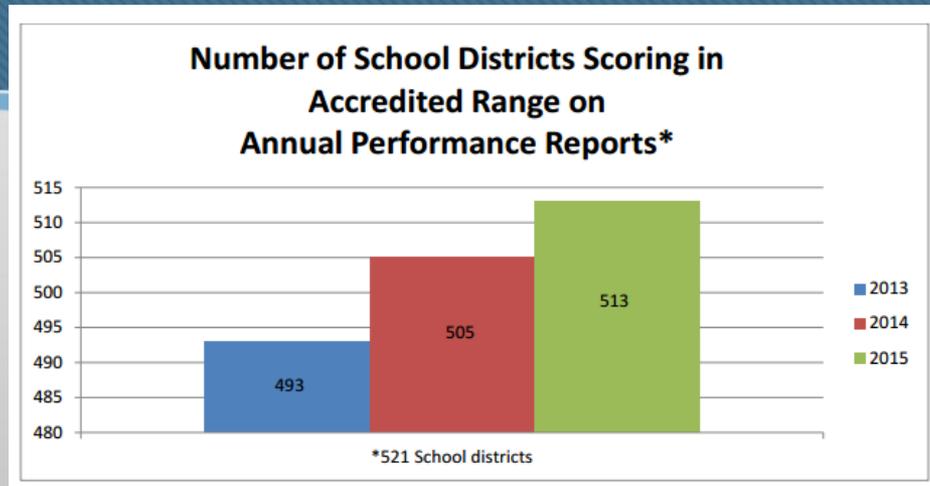
2. Proper Alternatives to Images



Complex Images

- Provide the alternative in context **OR**
- Provide a link to a page that contains the longer description
- Images have a `longdesc` option – don't use, not supported in HTML5
- The main image should still have some alt text

3. Proper Contrast/Use of Color



Color Contrast Checker

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

Foreground color: #27384b

Background color: #4f81bd

Contrast Ratio: 2.97:1

Normal Text

WCAG AA: **Fail**

WCAG AAA: **Fail**

Sample: i am normal text

Large Text

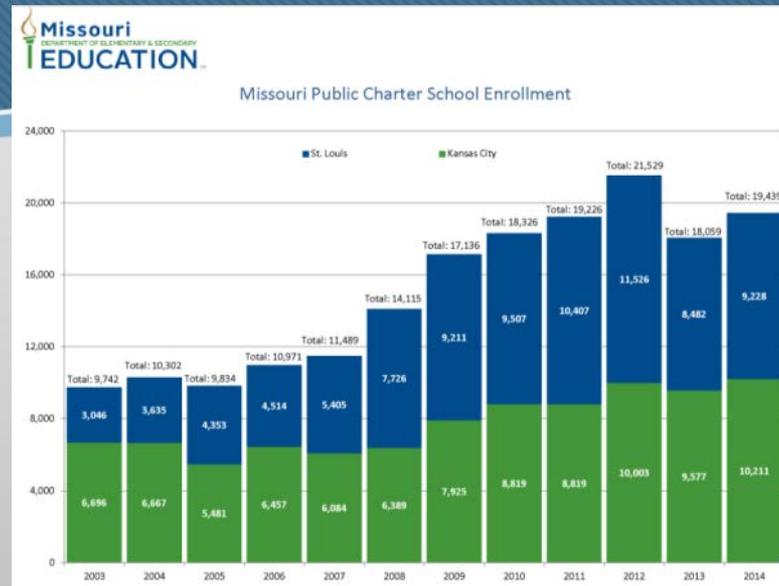
WCAG AA: **Fail**

WCAG AAA: **Fail**

Sample: i am large text

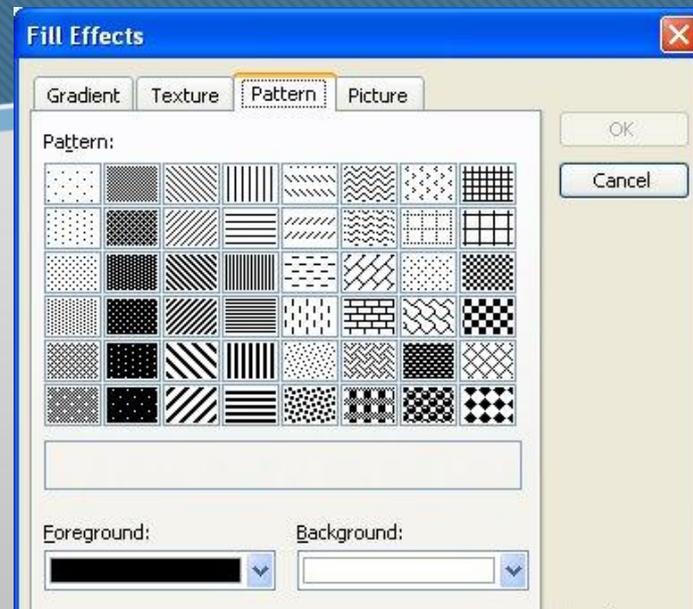
- Keep adequate foreground/background color contrast
- 4.5:1 ratio for regular text
- 3:1 for larger, heading style text
- [WebAIM Color Contrast Checker](#)
- Logos do not have to comply with contrast rules

3. Proper Contrast/Use of Color



Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element.

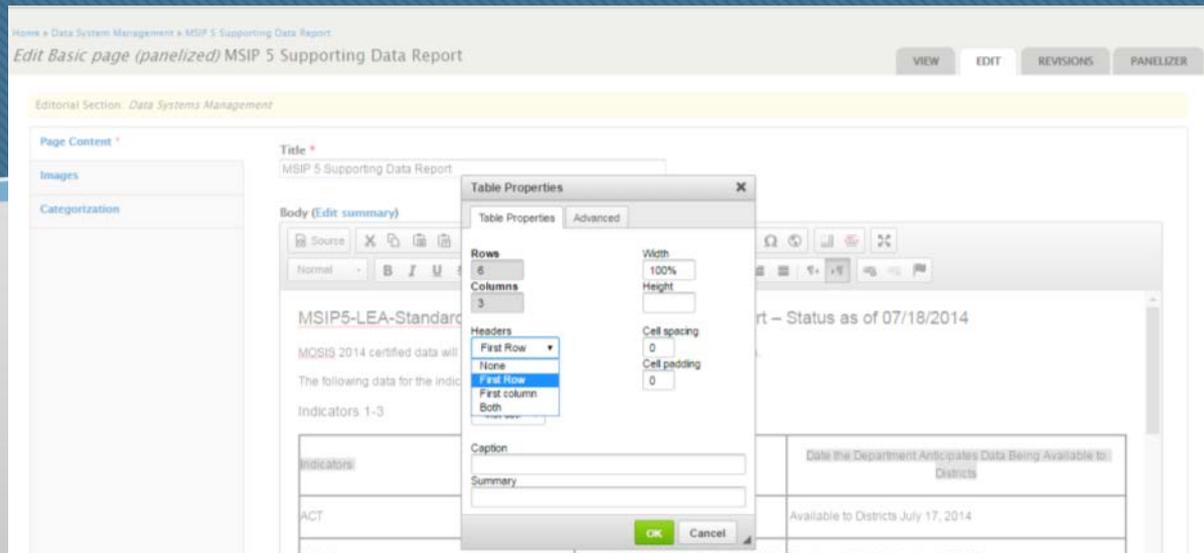
3. Proper Contrast/Use of Color



For example, in Excel you can combine color with a pattern to create distinction.

http://excel.tips.net/T003022_Changing_the_Pattern_Used_in_a_Data_Series.html

4. Proper Data Table Structure



- Use proper table headers to identify row and column headers.
- Include a table summary if you feel the table needs additional explanation beyond what the headers include for assistive technology such as screen readers
- Don't use tables for layout

5. Iframes and Titles

- The **IFrame** HTML element is often used to insert content from another source, such as a video, into a Web page.
- Iframes need titles
- ```
<iframe allowfullscreen=""
frameborder="0" height="191"
src="//www.youtube.com/embed/5Rn10QOK
Q2o?list=PLwaY7Ha3fP_IAGYGeEF1Le8f-
u9xu9JS_" title="More Than a Ranking
Video" width="360"></iframe>
```

## 6. Captions and Transcripts

- Video requires captioning for deaf/hard of hearing (auto-captioning enabled in YouTube)
- Provide text transcripts for any audio-only content
- Live webcasts currently excluded from captioning requirements (Missouri standard)

# 7. Properly Structured Documents

Preferred Formats for Web Content In Order:

1. HTML
2. PDF
3. Word/PPT/Excel
4. Other formats

## 7. Properly Structured Documents

Key to the best possible  
accessible document?

Use formatting tools

# 7. Properly Structured Documents

## Where to start? Cheatsheets!

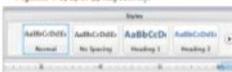


**CREATING ACCESSIBLE MICROSOFT WORD 2011 DOCUMENTS (MAC)**

**Headings**  
Create a uniform heading structure through use of styles in Word. This allows screen readers to navigate a document, and improves accessibility for everyone.

**Adding and Editing Headings**  
Headings can be created using the Styles toolbar.

1. Select the text and **click on the appropriate style**. (E.g. "Heading 1")
2. Headings 1, 2, or 3 can also be assigned using **command + option + 1, 2, or 3**, respectively.



**Alternative text for Images**  
Images can be given appropriate alternative text in Word. This text is read by a screen reader in a Word file and should remain intact when exporting to HTML or PDF.

1. Right-click (or **command + click**) on the image and select **Format Picture**. A dialog box will appear.
2. Select the **Alt Text** option in the sidebar. Enter appropriate alternative text in the **Description field**, not the Title field.



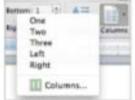
If you do not use the Alt Text option, make sure you have the **most up-to-date version** of Word. Alternative text is available in Office 14.1 or newer.



**Columns**  
When creating columns, **always use true columns**, not columns created by hand with the **Tab** key.

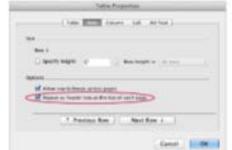
**Creating Columns**

1. Select **Layout** on the main ribbon.
2. Select **Columns** in the Page Setup group.



**Data Tables**

- Use the **Tables** ribbon to create tables, not by hand with spaces or the **Tab** key.
- There is no way to easily create table headers in Word. (but not in HTML). To do this, Right click on the first row in the table and select **Table Properties > Rows > Repeat as header row on the top of each page**.



**Links**  
Word automatically creates a hyperlink when a user pastes a full URL onto a page. These may not make sense to screen reader users, so **more information is needed**.

**Editing Hyperlinks**

1. Select a hyperlink, right click, and select **Edit Hyperlink** or **command + h**.

2. Change the URL in the **Display** field to a more meaningful description.



**Lists**  
Use **true numbered** and **bulleted lists** to emphasize a point or a sequence of steps. To create a list, select the **Numbered List** or **Bulleted List** option in the main ribbon.



**Other Principles**

- Ensure that font size is sufficient, around **12 points**.
- Provide **sufficient contrast**.
- Don't use color as the **only way** to convey content.
- Provide a **table of contents**, especially for long documents.
- Use **simple language**.
- For a more **widely supported file format**, consider saving files in "Word 97-2004 Document (.doc)" format instead of the default ".docx" format.

© 2013 Project GOALS. All rights reserved. Contact us at [goals@ncdae.org](http://goals@ncdae.org) or #435.797.3381 For a digital version go to [ncdae.org/resources/cheatsheets](http://ncdae.org/resources/cheatsheets)  
Made possible by a grant from the Fund for the Improvement of Postsecondary Education (FIPSE), US Department of Education. No official endorsement implied.

# 7. Properly Structured Documents

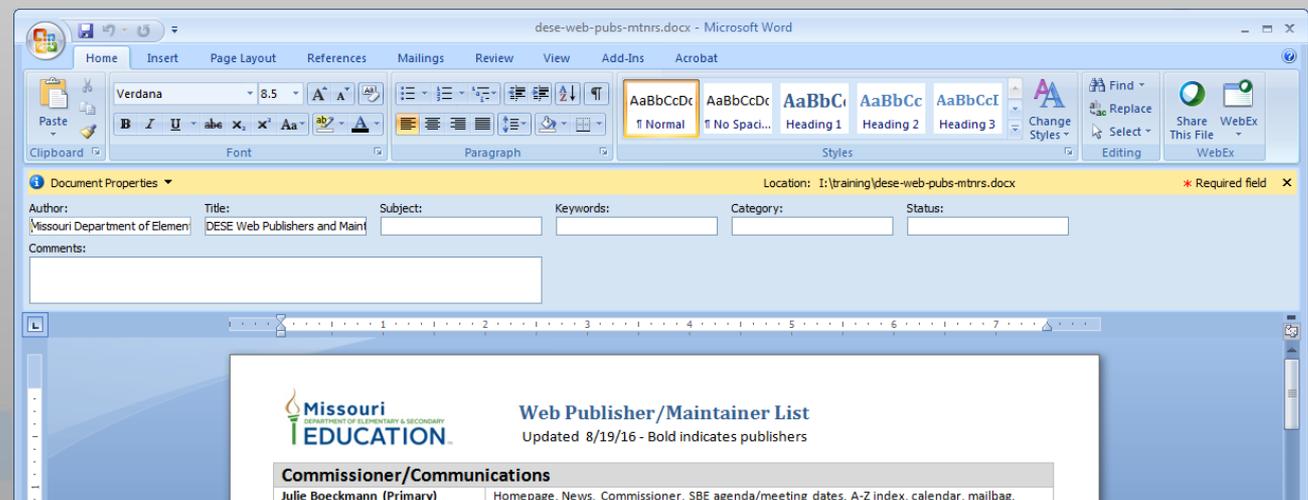
Where to start? **Cheatsheets!**

- *Word 2007/2010 (Windows)*
- PDF Conversion in Word
- *PowerPoint 2007/2010 (Windows)*
- *They have not created cheatsheet for Acrobat DC yet...*

# 7. Properly Structured Documents

**One thing to note that the cheatsheets missed**

- Fill in document properties correctly
- Author
- Title



# 7. Properly Structured Documents

## Adobe Acrobat Demos

- Creating a fillable forms – adding form fields
- Accessibility checker for PDF files – walkthrough
- [Testing Accessibility in Adobe DC](#)

# What's Next?

## Next phase of training

- **Web Publishers** – meet with your Office Web Maintainers to share the information from this training
- Trainings will need to be completed between now and **November 1, 2016**
- Once training complete, new procedure will go into effect
- Training materials are located at:  
I:\training\accessibility-training\Copy for Web Publishers (make a copy for your use)

# What's Next?

## Procedure

1. Put in practice what you've learned from training
2. Quarterly web page accessibility reports will be shared with primary office web publishers
3. All new and updated PDF documents will require an accessibility check completed before posted.
  - This will be conducted by either the **primary or backup web publisher**
  - 24 hour turnaround time, quicker if requested
  - Tyler or Lainie can be backups if both primary and backup out of office

# Q & A

- Any other questions related to what we've covered?
- If times allows, anything I can go over in more detail?

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