

Rethinking Alt Text to Improve its Effectiveness

Why Alt text is Failing its Purpose

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Table of Contents

- Rethinking Alt Text to Improve its Effectiveness (Slide 1)..... 3
- Introduction (Slide 2)..... 3
- End-User Survey (Slide 3) 3
 - Survey Results (Slide 4)..... 3
- Shortcomings with the current Alt Text method (Slide 5)..... 3
 - Gaps in Understanding (Slide 6)..... 3
 - Limitations of Alt Text (Slide 7)..... 4
- Functional limitations of Alt Text. (Slide 8)..... 4
 - Barriers of Alt Text (Slide 9)..... 4
 - Complex Image Sample (Slide 10) 5
- Broadening the Base of Alt Text Users and Their Needs (Slide 11) 5
 - Broadening the Baseline (Slide 12)..... 5
- Current Techniques to Describe Graphics (Slide 12)..... 5
 - Content and Infographics (Slide 14) 6
- Lack of industry-wide standardized guidelines. (Slide 15) 6
 - Current State of Content Authoring (Slide 16) 6
 - New ISO/ITU Standard (Slide 17)..... 6
- Conclusion (Slide 18)..... 7
 - The Future of Graphic Descriptions (Slide 19)..... 7
- Resources! (Slide 20)..... 7

Rethinking Alt Text to Improve its Effectiveness (Slide 1)

Why Alt text is Failing its Purpose

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Introduction (Slide 2)

- Alt text or the “alt attribute” is the primary means of describing complex images.
- Only available to those using screen readers or Text-to-Speech tools.
- We are creating more complex documents such as infographics which may be confusing to other people.
- LongDesc or Expanded Text isn’t always practical.
- Many “d” or “More” links all with the same name.
- In either technique, structure cannot be used to adequately describe complex graphics.

End-User Survey (Slide 3)

First Alt Text survey of those who depend on Alt text to provide meaningful information about complex graphics.

Survey Results (Slide 4)

- 21 participants.
- Dissatisfaction with how Alt Text is not uniformly implemented.
- Adaptive technology reads all of it or none of it.
- Can’t go back through it character by character, check spelling or review a concept.
- Often doesn’t relate to the content of the document.
- Alt Text for complex images with data are particularly difficult to follow.

Shortcomings with the current Alt Text method (Slide 5)

Some of the accessibility barriers of Alt text.

Gaps in Understanding (Slide 6)

- Elements of literacy:
- simultaneous learning of concepts associated with graphics such as “the concepts of action, extension, importance, intentionality, partiality, permanence, relevance, and representation” (Roberts, Norman, Duke, Morsink, & Martin, 2022)
- Tactile graphics require training on how to interpret the tactile elements of the graphic.
- Students learn the relationship between text and graphics.
- Not all graphics relate directly to text.

Limitations of Alt Text (Slide 7)

- Limited functionality of the Alt Text attribute.
- It's an attribute on a <Figure> or tag.
- Alt Text is metadata about the tag.
- Poorly defined tags among the standards (WCAG, PDF/UA, EPUB).
- Often conflict with each other or duplicate the purpose.
- Should the content author use Alt Text? Actual text? Caption? Body Text? Summary?
- Limited advice for content creators on how to provide accessibility of their graphics.
- Lack of education around crafting/writing Alt text.

Functional limitations of Alt Text. (Slide 8)

Realities encountered when crafting/writing or accessing Alt Text.

Barriers of Alt Text (Slide 9)

- Only those using screen readers or Text-to-Speech tools can access Alt Text.
- Can't contain multiple languages.
- Detailed access varies from one format/medium to another.
- Doesn't transfer when content is sent to Braille embosser.
- No indication when Alt Text ends and body text continues.

Complex Image Sample (Slide 10)

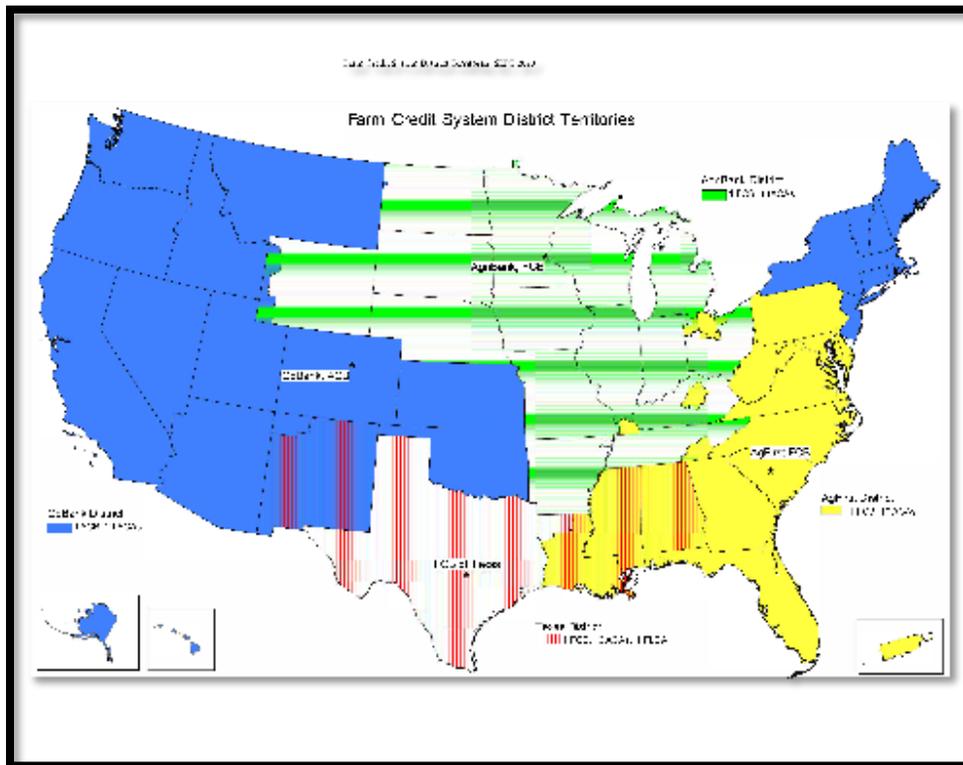


Figure 1 A sample map from ArcGIS shows banking districts by county in the US.

Broadening the Base of Alt Text Users and Their Needs (Slide 11)

Alt Text for everyone? Changing the way we create digital content.

Broadening the Baseline (Slide 12)

- We use the baseline of someone who is blind for creating accessible digital content.
- We need to expand this baseline.
- Learning, cognitive, print disabilities.
- Information processing issues:
- Spatial issues.
- Difficulty identifying objects that overlap, similar shapes or objects, text from background, or long/short term memory issues.

Current Techniques to Describe Graphics (Slide 12)

Educating content authors on the barriers of Alt text, finding new technologies to support readers (people, not applications).

Content and Infographics (Slide 14)

- Need to educate content authors on the importance of providing details of complex images in the text that surrounds them.
- Including data tables before or after charts to support multi-modal access to the content.
- If data tables are too large, concisely identify the data used for the chart in the surrounding text.
- Alt text is used to provide a summary of the data contained in the body of the document.
- The chart or complex image is to support the surrounding content, it isn't the content.

Lack of industry-wide standardized guidelines. (Slide 15)

No consistent technique for providing Alt text or guidelines on how to write it.

Current State of Content Authoring (Slide 16)

What's available are merely opinions of what content authors should do, and these recommendations vary depending on the author of the policy or the organization that publishes the guidelines.

New ISO/ITU Standard (Slide 17)

- [ITU-T T.701.11](https://www.itu.int/rec/T-REC-T.701.11)¹ or [ISO/IEC 20071-11:2019](https://www.iso.org/standard/74345.html)².
- "This Recommendation applies to all static images that are used in any type of electronic document."
- Does not apply to moving images. There is a similar ISO/ITU standard/guidance for captioning moving images.
- Definitions:
- Text Alternative: the description is somewhere else, either in the document or on a web page.
- Alternative Text resides as an attribute of the image.
- While SME's can describe images, they cannot discern the author's intent in using an image.
- Content authors should create the text alternative/Alt Text.

¹ ITU-T.701.11: <https://www.itu.int/rec/T-REC-T.701.11>

² ISO/IEC 20071-11:2019; <https://www.iso.org/standard/74345.html>

Conclusion (Slide 18)

We all need to be on the same page. We need to rethink how we add and describe complex images.

The Future of Graphic Descriptions (Slide 19)

- The goal of our future research is to explore various ways to provide information about graphics to all users, and to ensure that all types of graphics can be conveyed across different adaptive technologies and media.
- End-users are willing to talk about their experiences and most answered the question to think outside the box in terms of what they want or need for describing complex still images.

Resources! (Slide 20)

Want to know more about accessible document design or inclusive education? Here are some resources.

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