

# KT Tip Sheet: Making Infographics Accessible and 508 Compliant

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## Basic Tips for Designing Infographics for People With Disabilities

Designing infographics and data visualizations for people with disabilities is not only about accessibility, but also diversity and inclusion. People with disabilities are a large and diverse group of potential users, customers, and audiences with different needs, preferences, and experiences. In this tipsheet, you will learn some basic principles and tips on how to design graphics that are accessible, and usable, for people with disabilities.

### ■ **Understand the Types of Disabilities**

The first step is to understand the different types of disabilities and how they affect the perception of and interaction with graphics for people with disabilities. Disabilities can be categorized into four main groups: visual, auditory, motor, and cognitive. Each group has different subtypes and degrees of severity and may require different adaptations and accommodations. For example, people with low vision may need larger fonts, higher contrast, and alternative text, while people with color blindness may need color cues, labels, and patterns.

### ■ **Follow the Web Content Accessibility Guidelines**

The Web Content Accessibility Guidelines (WCAG) are a set of standards and recommendations for making web content accessible for people with disabilities. They cover various aspects of web design, including graphics, text, audio, video, navigation, and interaction. The WCAG are organized into four principles: perceivable, operable, understandable, and robust. Each principle has a number of guidelines and success criteria, which are rated by three levels of conformance: A, AA, and AAA. The WCAG can help you design graphics that are compatible with assistive technologies, such as screen readers, magnifiers, and keyboards.

### ■ Use Clear and Simple Graphics

Creating graphics for people with disabilities requires clear and simple designs that convey the intended message and information without unnecessary complexity or clutter. This can help those with cognitive disabilities, such as dyslexia, attention-deficit/hyperactivity disorder, or autism, to process and understand the graphics more easily. Additionally, it can help those with visual disabilities, such as low vision or color blindness, to distinguish the graphics from the background and recognize the shapes and symbols. To ensure clarity and readability, use a consistent and intuitive visual language made up of icons, colors, fonts, and layouts. Make sure to use adequate white space and alignment to create a balanced composition. Contrast and hierarchy should be used to emphasize important elements and guide eye movement. Labels and captions should be used to explain graphics and provide context. Avoid using too many colors, gradients, shadows, or effects as they may reduce clarity. Some text should also be avoided in graphics, especially small or stylized fonts that may be difficult to read or translate.

### ■ Provide Multiple Modes of Presentation

Designing graphics for people with disabilities requires providing multiple modes of presentation that cater to different preferences and abilities. For example, alternative text is a requirement for 508 compliance and should be provided for images, graphs, charts, and diagrams to describe the content and function of the graphics. Additionally, captions, transcripts, or sign language can be included for audio or video content that accompany the graphics. Audio descriptions can also be provided for complex or dynamic graphics to describe the visual elements and actions of the graphics. Furthermore, keyboard shortcuts, tab order, and focus indicators should be implemented for interactive graphics to allow users to navigate and manipulate the graphics without a mouse. Finally, voice input and output should be provided for graphics to allow users to listen to the graphics.

### ■ Test and Evaluate Your Graphics

The final step in designing graphics for people with disabilities is to test and evaluate your graphics with real users and tools. This can help you identify and fix any accessibility issues, errors, or gaps that may affect user experience and satisfaction. Additionally, testing and evaluating your graphics can provide feedback and insights from people with disabilities, who can share their opinions, preferences, and suggestions. Some methods and tools for testing and evaluating your graphics include conducting user testing with people with disabilities, using accessibility checkers such as [WAVE](#) or [AChecker](#), and using accessibility simulators like NoCoffee or [Funkify](#). All of these can help you ensure that your graphics are accessible for people with disabilities.

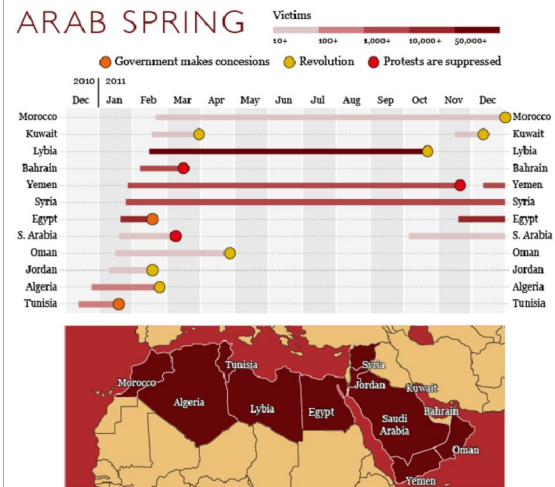
Source: <https://www.linkedin.com/showcase/skills-graphics/posts/?feedView=all>

# Steps in Making Your Infographic 508 Compliant

## 1 Create Your Graphic in Adobe Illustrator

Adobe Illustrator is the go-to software for creating and stylizing print charts, maps, and vector illustrations. It is limited to 9 forms of charts, but experienced designers can create different types of charts starting with these basic tools. Adobe Illustrator will be the first step in making your graphic accessible because this is where you create the proper color contrast and type sizes for your graphics.

The graphic on Arab Spring at right is what we will use to walk you through the steps of making a graphic 508 compliant and accessible. It includes a headline, key/legend, bar chart, and a map.



## 2 Use a Color Contrast Checker

Use TPGi's free color contrast checker to optimize your content—including text and visual elements—for individuals with color blindness or low vision. The current version is 3.3.0. Any text that is reversed, meaning white on a dark background, needs to be 12 point and bold for it to work.

<https://www.tpgi.com/color-contrast-checker/>

## 3 File/Export Your Graphic as a JPG or Save a Version as an EPS

Alt text will not show in Illustrator files saved in InDesign. Create a JPG version of your graphic or save it as an EPS.

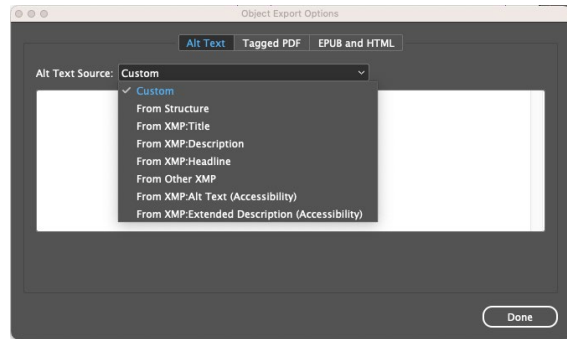
## 4 Use Adobe InDesign to Create Alt Text

Once the graphic is placed in InDesign, add alternate text to the graphic so that screen readers can read the alt text to those who use screen readers. This is true for photos you may use in your design as well.

**STEP A:** Select the graphic (or photo) in your InDesign file.

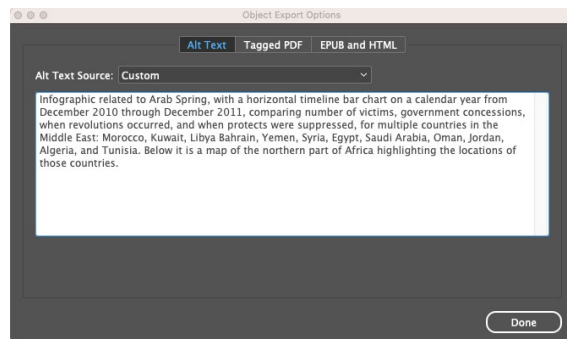
**STEP B:** Go to the menu and select Object/Object Export Options. The following dialogue box will appear.

**STEP C:** Under Alt Text, on the drop-down menu, change the default alt text source from “From Structure” to “Custom,” and then insert a description of what the chart shows in the white box. You do not have to include every detail about the graphic, but should include enough detail to explain the message of the graphic or what is visualized in it. Include the headline, any introductory text, as well as sources and credit if this information is part of the graphic. If these elements are not part of the graphic but are presented as readable text outside the graphic, then they do not need to be included in the alt text. Note that some agencies have character limits for alt text. If you are writing alt text for a photo, it should explain more than the related caption in your design, because it should describe the scene for the person as well.



### Example of Infographic Alt Text

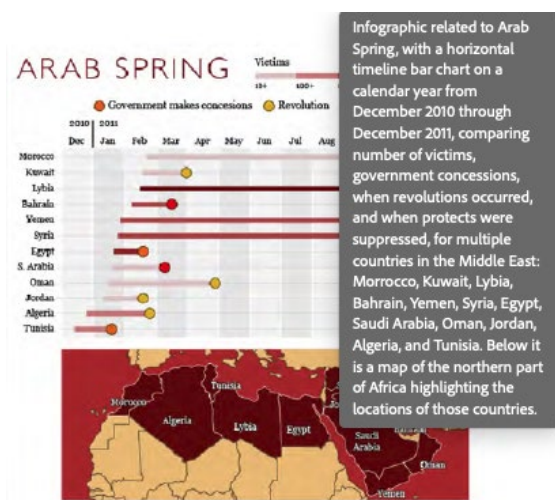
Infographic related to Arab Spring, with a horizontal timeline bar chart on a calendar year from December 2010 through December 2011, comparing number of victims, government concessions, when revolutions occurred, and when protests were suppressed, for multiple countries in the Middle East: Morocco, Kuwait, Libya, Bahrain, Yemen, Syria, Egypt, Saudi Arabia, Oman, Jordan, Algeria, and Tunisia. Below it is a map of the northern part of Africa highlighting the locations of those countries.



**STEP D:** Click “Done” button to close the box.

## 5 Create the PDF to Test Your Alt Text

From InDesign, File/Export your file as an Adobe PDF (Interactive). The alt text will appear like in the image at right when you hover over it.



Infographic related to Arab Spring, with a horizontal timeline bar chart on a calendar year from December 2010 through December 2011, comparing number of victims, government concessions, when revolutions occurred, and when protests were suppressed, for multiple countries in the Middle East: Morocco, Kuwait, Lybia, Bahrain, Yemen, Syria, Egypt, Saudi Arabia, Oman, Jordan, Algeria, and Tunisia. Below it is a map of the northern part of Africa highlighting the locations of those countries.

## If You Don't Want an Element to Appear for the Reading Device

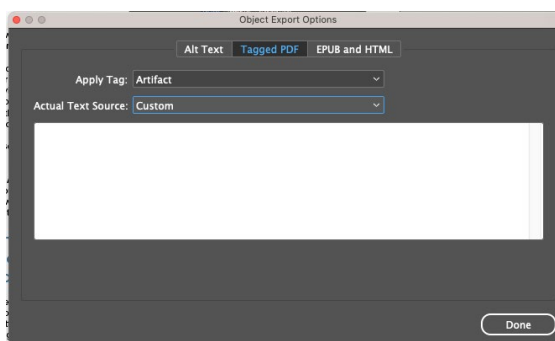
Certain design elements may not be needed to understand the content. Examples include icons or repetitive text like folios at the bottom of a page. To make them appear hidden to the reading device, do the following:

**STEP A:** Select the element on your InDesign file.

**STEP B:** Go to the menu and select Object/Object Export Options.

**STEP C:** In the dialogue box that appears, select the Tagged PDF tab, and change Apply Tag to “Artifact,” and Actual Text Source to “Custom.” They will appear as “From Structure” at first.

**STEP D:** Click “Done.” The element will appear without any alt text and will not be a clickable item in your final PDF.



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