Data Savvy

- My experiences and education in data modeling, integration, transformation, analysis, and visualization -

**ACCESSIBILITY, DATA VISUALIZATION, MICROSOFT TECHNOLOGIES, POWER BI**

# Power BI Report Accessibility Checklist

June 6, 2018September 24, 2020     Meagan Longoria

In many cases, some small changes can go a long way in making your Power BI reports more accessible for users with different abilities. The checklist below lists considerations you should make in your report design to create more inclusive reports. I'll update this post as new features are released.

## Accessibility Checklist

Last Updated: 15-Sep-2020

All Visuals

- Ensure color contrast between title, axis label, and data label text and the background are at least 4.5:1.
- Ensure color contrast between non-decorative non-text elements and their background is at least 3:1.
- Avoid using color as the only means of conveying information. Use text or icons to supplement or replace the color.
- Replace unnecessary jargon or acronyms.
- Ensure alt text is added to all non-decorative visuals on the page.
- Check that your report page works for users with color vision deficiency.
- Add descriptive, purposeful titles to charts
- Purposefully set the sort order of each visual on the page. The accessible Show Data table shows the data in the sort order you have set on the visual.

Slicers

- If you have a collection of several slicers on your report pages, ensure your design is consistent across pages. Use the same font, colors, and spatial position as much as possible.

Textbox

- Ensure color contrast between font and background are at least 4.5:1.
- Make sure to put text contents in the alt text box so screen readers can read them. If the text doesn't fit within the alt text character limit, write a summary or highlight an important data point.

Visual Interactions

- Is key information only accessible through an interaction? If so, rearrange your visuals so they are pre-filtered to make the important conclusion more obvious.
- Are you using bookmarks for navigation? Try navigating your report with a keyboard to ensure the experience is acceptable for keyboard-only users.

## Tooltips

- Don't use tooltips to convey important information. Users with motor issues and users who do not use a mouse will have difficulties accessing them.
- Do add default tooltips to charts as ancillary information. It is included in the accessible Show Data table for each visual.

## Video

- Avoid video that automatically starts when the page is rendered.
- Ensure your video has captions or provide a transcript.

## Audio

- Avoid audio that automatically starts when the page is rendered.
- Provide a transcript for any audio.

## Shapes

- Make sure any decorative shapes are marked as hidden in tab order, so they aren't announced by a screen reader.
- Avoid using too many decorative shapes to the point where they are distracting.
- When using shapes to call out data points, use alt text to explain what is being called out.

## Images

- When using images to call out data points, use alt text to explain what is being called out.
- Make sure any decorative images are marked as hidden in tab order, so they aren't announced by a screen reader.
- Avoid using too many decorative images, to the point where they are distracting.

## Custom Visuals

- Check the accessible Show Data table for custom visuals. If the information shown is not sufficient, look for another visual.
  Check the visual using high contrast model to ensure the colors change appropriately. If the appearance is not high contrast, look for another visual.
- If using the Play Axis custom visual, ensure it does not autoplay. Make it obvious that the user must press the play/pause button to start/stop the changing values.

## Across Visuals on the Page

- Set tab order and turn off tab order (mark the item as hidden) on any decorative items.
- Add explanatory text as needed to describe your charts and their necessary context (perhaps via textbox or visual header tooltips).

# Power BI Accessibility Features

- Keyboard shortcuts (https://docs.microsoft.com/en-us/power-bi/desktop-accessibility#consuming-a-power-bi-desktop-report-with-a-keyboard-or-screen-reader)
- Alt Text (https://docs.microsoft.com/en-us/power-bi/desktop-accessibility#tips-for-creating-accessible-reports)
- High Contrast Colors (https://docs.microsoft.com/en-us/power-bi/desktop-accessibility#high-contrast-support-for-reports)
- Tab Order (https://powerbi.microsoft.com/en-us/blog/power-bi-desktop-december-2018-feature-summary/#tabOrder)
- Screen reader compatibility (https://docs.microsoft.com/en-us/power-bi/desktop-accessibility-consuming-tools#screen-reader)
- Focus mode (https://docs.microsoft.com/en-us/power-bi/consumer/end-user-focus#what-is-focus-mode)
- Accessible Show Data table (https://docs.microsoft.com/en-us/power-bi/desktop-accessibility-consuming-tools#screen-reader)
- Visual header tooltip (https://prathy.com/2019/07/power-bi-visual-header-tooltip/)
- Visual titles (Good descriptions help users understand what to expect in the visual)
- Report themes (help enforce good color contrast and color blind friendly colors)

# Tools to Check Accessibility in your Power BI Report

Keyboard-Only Navigation

- Use a keyboard to navigate and interact with your report, without using a mouse.

Color Vision Deficiency

- Use Coblis (http://www.color-blindness.com/coblis-color-blindness-simulator/) or Vischeck (http://www.vischeck.com/vischeck/vischeckImage.php) to check for color vision deficiency issues
- WhoCanUse.com (https://whocanuse.com/) is great for checking text contrast against background for color vision deficiency as well as glaucoma, low vision, cataracts, and direct sunlight.
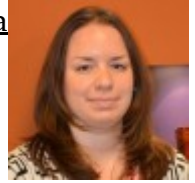
Low Vision

- Use a mobile device with brightness on low to test mobile reports
- Use Colour Contrast Analyser (https://developer.paciellogroup.com/resources/contrastanalyser/) (desktop application), WebAIM (https://webaim.org/resources/contrastchecker/) (website) or Accessible Colors (http://accessible-colors.com/) (website) to check color contrast of text vs background
- Use The Squint Test (https://chrome.google.com/webstore/detail/the-squint-test/gppnipfbappicilfniaimcnagbpfflpg) to check that a Power BI report makes sense to someone with low vision

- Use a magnifier app (https://support.microsoft.com/en-us/help/11542/windows-use-magnifier-to-make-things-easier-to-see) to ensure visuals and images can be successfully consumed by those with low vision who use a magnifier.

If you would like to suggest an update to the list, feel free to leave a comment on this post.

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# 11 thoughts on "Power BI Report Accessibility Checklist"

1. Pingback: Making Power BI Reports Accessible – Curated SQL

2. **ALAN JONES (@ASJONES987)**    says:

   June 7, 2018 at 11:50 AM

   I have used this tool for desktop color blind checking ….

   http://colororacle.org/

   https://github.com/nvkelso

   Not sure how good it is, but it seems to be helpful… …. to view your desktop in various color blind modes.

   Reply →

3. Pingback: Power BI Learning Path – Free and Paid Resources | SQLGene – Learning SQL Slowly

4. Pingback: Learning Better Presentation Skills (T-SQL Tuesday #108)

5. Pingback: Power BI Visual Usability Checklist

6. Pingback: Power BI Learning Path - Free and Paid Resources - SQLGene Training

   **ASHWINI**    says:

   May 12, 2020 at 12:29 AM

   "Ensure alt text is added to all non-decorative visuals on the page". what comes under nondecorative visuals?

   1. Reply →

      **MEAGAN LONGORIA**    says:

      May 12, 2020 at 6:26 AM

      Decorative visuals are those serving only an aesthetic purpose, providing no information, and having no functionality. This might be a shape or image that you have placed on a report page for formatting that doesn't convey extra meaning and with which users will not interact.
      For more info on alt text, check out https://veroniiiica.com/2018/01/31/how-to-write-alt-text-image-descriptions-visually-impaired/

      Reply →

8. Pingback: Fun with Power BI and Color Math – Data Savvy

9. Pingback: Stop Letting Accessibility Be Optional In Your Power BI Reports – Data Savvy
10. Pingback: Paginated Report November 2020 Feature Summary - Power Community

BLOG AT WORDPRESS.COM.