Be Ahead of the Curve: Create Accessible Graphs

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by Gina Catenazzo, Instructional Designer in the Teaching & Learning Centre

Have you ever thought about whether the graphs you insert into your PowerPoint presentations are accessible? Are you unintentionally adding a barrier when creating a line or bar graph, making them inaccessible to some people? By the way, the line graph in the banner of this article is inaccessible. More about that later.
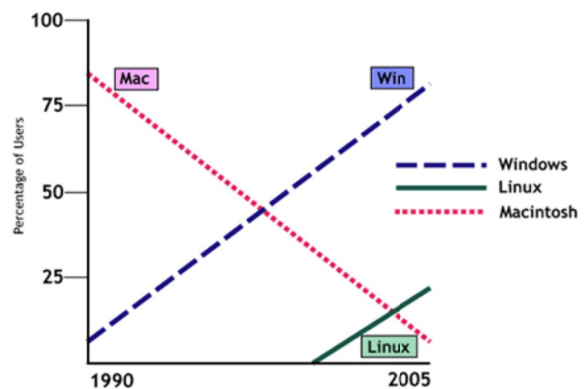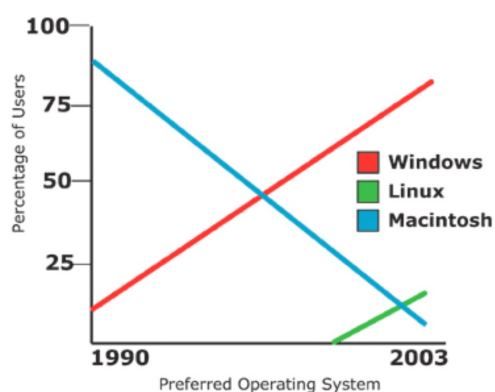
In Ontario, we are governed by the Accessibility for Ontarians with Disabilities Act (AODA), which is informed by the Web Content Accessibility Guidelines (WCAG). The WCAG guideline that we will examine in this article is

> 1.4.1 Use of Colour - Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element (Web Accessibility Initiative 2019).
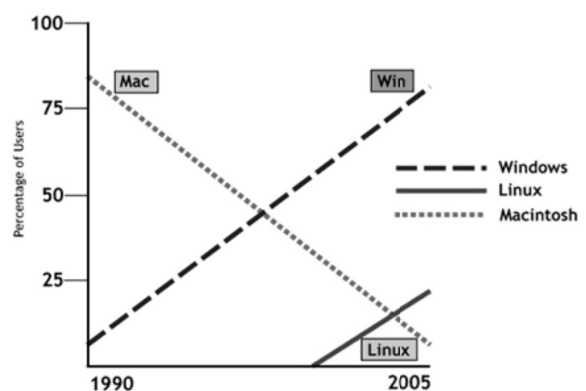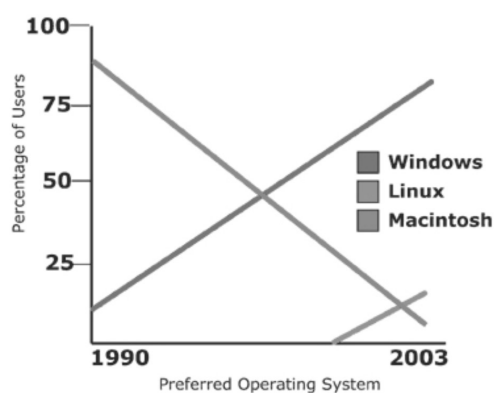
So, let's break this down.

Guideline 1.4.1 Use of Colour explains that colour cannot be used by itself to identify content or information. When it comes to graphs, in addition to colour, we need to also use something else, such as texture, line style, text and/or labels.

If we look at the two line graphs below, the one on the left is not accessible and the one on the right is accessible. For the graph on the left, colour is the only way that we can identify the content. Whereas, for the graph on the right, colour, line style, and labels are all being used to identify content.

The question you essentially need to ask yourself is, "Does it make sense in black and white?" If the answer is 'no', then it is not accessible. Let's revisit the two graphs from previously, but in black and white. If I ask you the question, "What percentage of people used Macintosh computers in 2000?", would you be able to answer that question if given the inaccessible version of the graph? Absolutely not.

Let's circle back to the banner image of this article and why it is not accessible. You guessed it! Colour is the only method used to identify content and the graph would not be understandable in black and white.

If you are interested in knowing more about creating accessible content, have a look at this video on Foundations of Accessibility for Digital Materials (59:49 minutes) from *Teaching & Learning*

Day Fall 2021. As well, if you have any questions about creating accessible content and digital materials, do not hesitate to reach out at gina.catenazzo@senecacollege.ca and/or the Teaching & Learning Centre.

References

Penn State University. *Charts & Accessibility* [image file]. Retrieved from https://accessibility.psu.edu/images/charts/

Web Accessibility Initiative (2019). How to Meet WCAG 2 (Quick Reference). Retrieved from https://www.w3.org/WAI/WCAG21/quickref/?versions=2.0

Web Accessibility Initiative (2022). Complex Images. Retrieved from https://www.w3.org/WAI/tutorials/images/complex/

Save the Date!

Teaching & Learning Day Winter 2023 is on Monday, February 27, 2023 at Newnham Campus! It is a one-day conference dedicated to showcasing and sharing ideas and activities about how to enhance teaching and learning. The focus of *Teaching & Learning Day Winter 2023* is on **Educational Technology**.

More details will be coming soon!

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