

Creating Infographics with Canva

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ENGW3307: Advanced Writing in the Sciences
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*Feel free to ask questions at any
point during the presentation!*

Workshop Agenda

- Learn about dynamic and static modes of conveying information.
- Review best practices of visualizing data.
- Explore how to make visualizations using Canva, a free online tool.
- Consider accessibility in designing presentations and infographics.

For more information, please see: <https://bit.ly/fa23-gilreath-canva>



Infographics



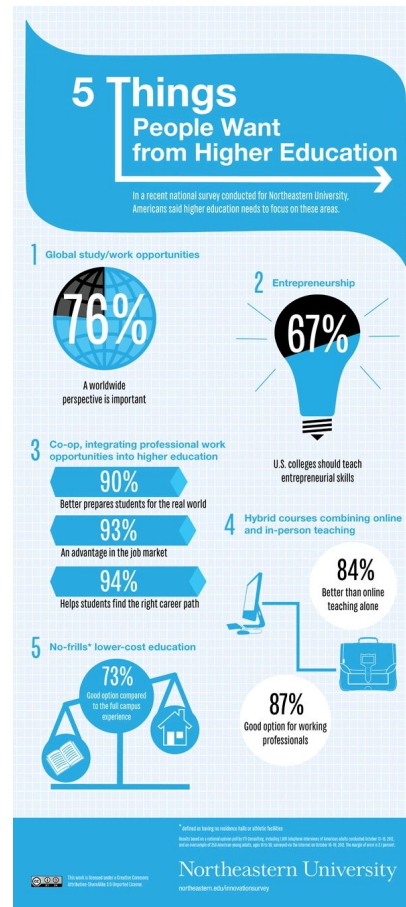
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Infographics Basics

- Infographics present complex information quickly and clearly.
- They tell a story with information, mostly images combined with numbers, charts, graphs, and summary text.
- They can be as simple as a road sign or as complex as a visual analysis of global economies.
- They easily convey information and data to different audiences.



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Infographics Help You:

- **Catch the attention** of new users/audiences.
 - **Present more information** without overloading audiences; they summarize and synthesize “need to know” information.
 - **Offer concise and simple visuals** to help audiences navigate and engage with complex information.
 - **Reach across platforms and media.**
- Infographics are well-suited for both print and digital presentation.



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Elements of Infographics

- Infographics should have:
 - A **narrow** focus or subject matter.
 - **Short** and **accessible** titles.
 - **Visually interesting** components.
 - A **structure** and **sequence** to the information they present.
 - **Citations** for all of the information included.



[History.com & Column Five](#)



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Ingredients of a Good Infographic

- **Clarity:** The visual design and data/text should be clear. Avoid clutter; if it's hard to read or find your place, there might be too much going on!
- **Usefulness:** Each part of the infographic should contribute to the broader argument or story. Get rid of filler or repetition!
- **Aesthetics:** Good infographics are visually interesting, and balance graphics and text.
- **Accessibility:** Make sure text is not cut off or covered by image, add descriptive alt-text to your infographic image.

For more information on accessibility, please see: <https://bit.ly/diti-accessibility>



Discussion: Text to Visuals

- How can visuals enhance your writing?
- What elements of your writing do you think could be improved by being presented in an infographic format (ie. thesis, structure, flow, etc)?
- What are some obstacles you might face when converting your writing to an infographic format?



Build a coherent argument or story

- Treat your presentation like any other form of argument, explanation, or narrative—be **intentional**, and **organize** your points chronologically or as ordered steps in a process.
- Put **main ideas front-and-center**, and consider having your points progress down orders of importance.
- Use **signposts** or **sections** to orient your audience, i.e. pairing each point with numbers, shifting color gradients, etc.



Some more tips

- Draw up an outline or storyboard **before** you build the graphic.
- Have a specific and **clear title**.
- Contain **carefully-proofed syntax and vocabulary**, and explain terms/jargon.
- Have **proper citations**.
- Don't mix visual types on a single slide. Keep a consistent font, color scheme, animation effects, design, formatting, etc.
- Limit text—keep negative space for the graphical component.



Keep it Visible: Fonts

- **Sans serif** fonts are typically the best for presentations.
- Use no more than two complementary fonts (e.g., Arial and **Arial Bold** for emphasis).
- Use mixed case, not all CAPS.
- **Bold** vs. Underline vs. *Italics*.

Times New Roman: Keep it visible

EB Garamond: Keep it visible

Arial: Keep it visible

Droid Sans: Keep it visible

Caveat: Keep it visible

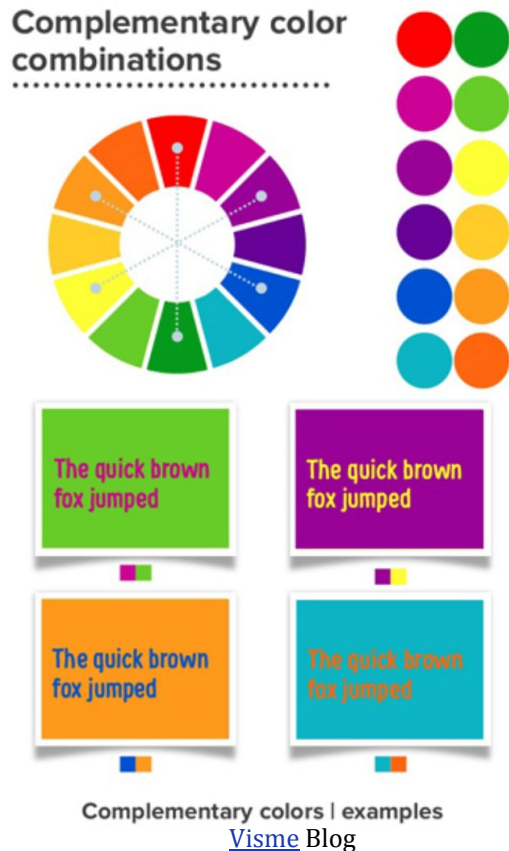
Comic Sans: Keep it visible

Cambria: Keep it visible

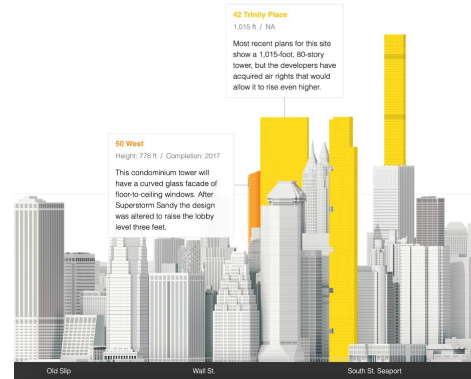


Keep it Visible: Colors

- Make color choices that are accessible to everyone (and appropriate for the presentation).
- Ideal color schemes are **high contrast** (use a [contrast checker](#)).
- Think about limiting your palette (3 colors can be effective).
- Find complementary colors (e.g. [this tool](#)).
- [NU Colors](#) provides the Northeastern University palette.



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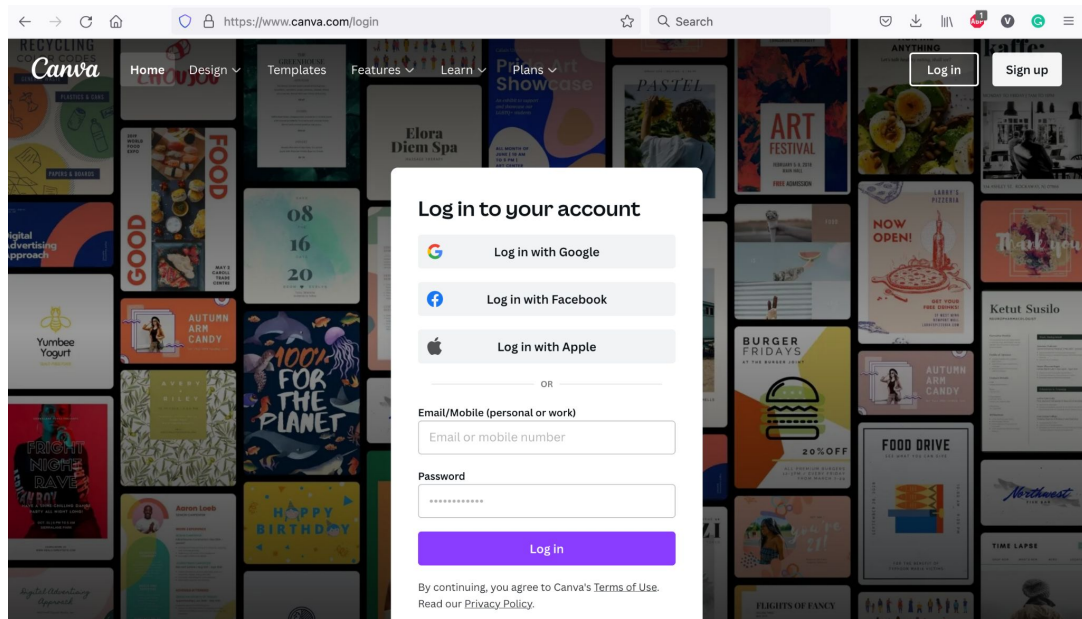
Getting Started with Canva



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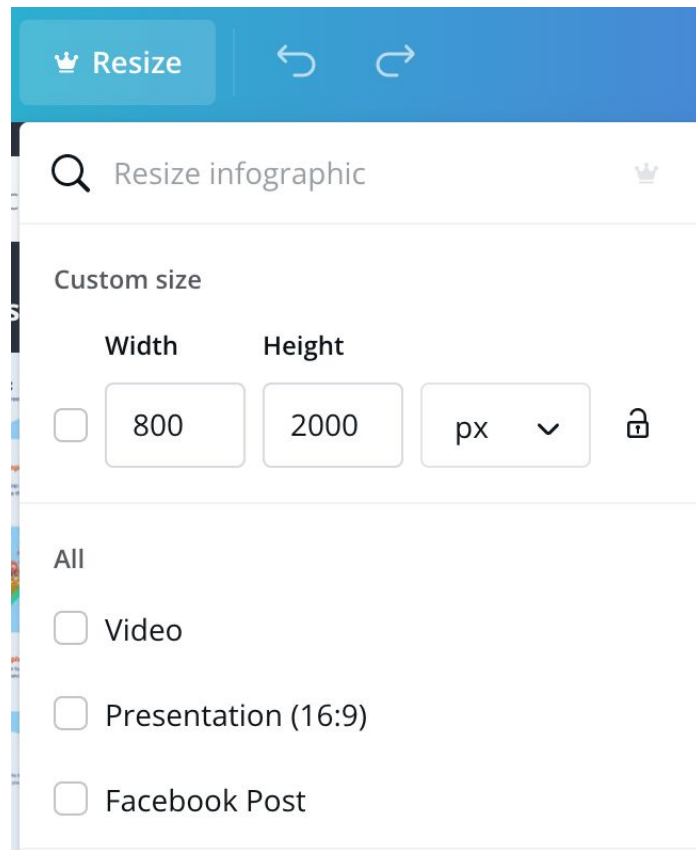
Sign up/Login

- Canva is a free online infographic maker.
- Use your Gmail/Facebook/Apple ID to sign up or create an account.
- Click “Create A Design.”



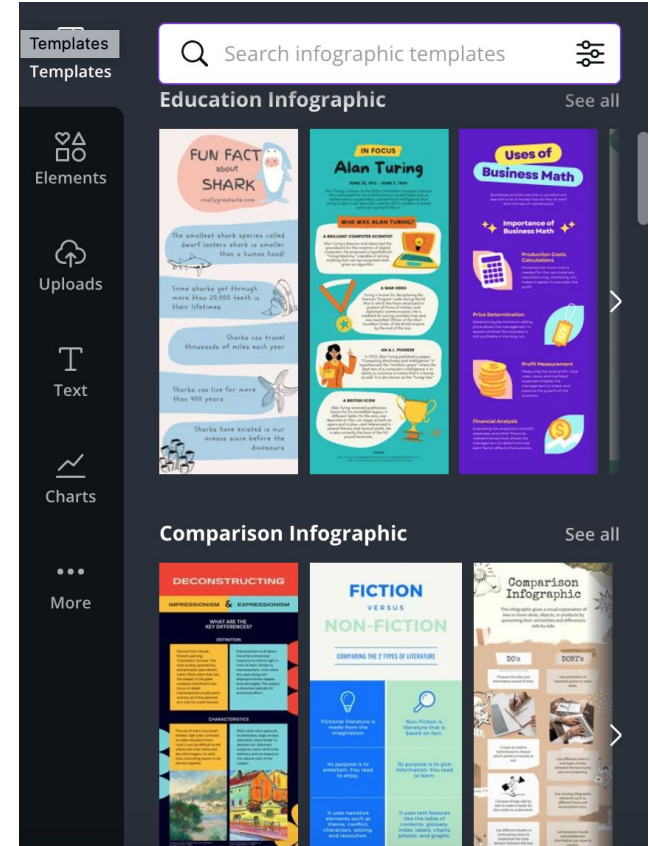
Starting Up...

- First, pick your canvas dimensions. Canva features a curated 'infographic' size, but you can customize the width and length when opening a new graphic. You can also add more 'pages.'
 - Unfortunately, resizing and adding pages in an already existing graphic is only available in paid subscriptions.
- Infographics work best when presenting information through one direction, so it might help to size your canvas as being long either vertically or horizontally.



Pick a Style

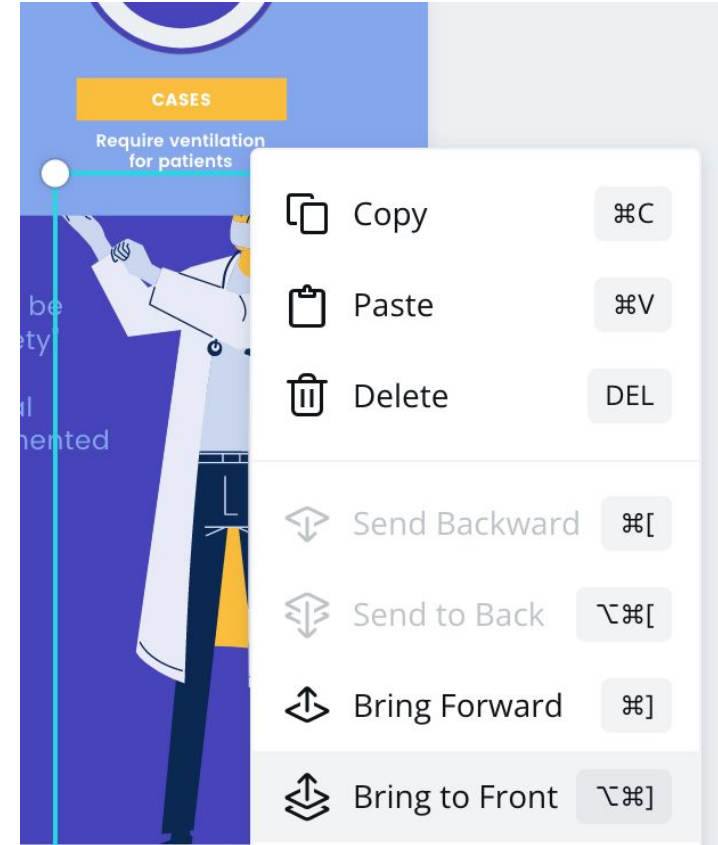
- Infographics work best when presented in a uniform style.
- Try to get your information and your design to work together!
- If you need some help or inspiration, Canva offers several infographic templates you can start from.



Layers

- Canva works by combining several graphic layers.
- Layers can be anything that shows up on the canvas—elements, charts, text, etc.—and can be customized in many ways. You can drag them around, change their colors, resize them, and more!

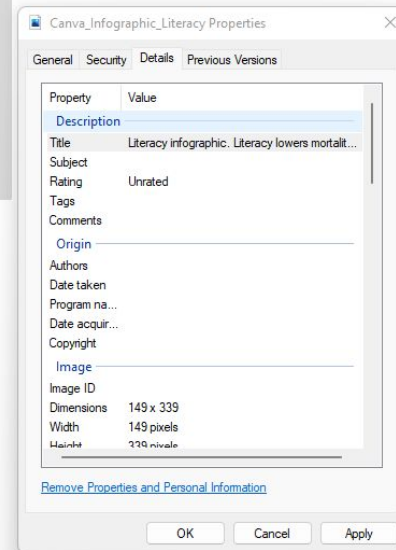
Remember that you can always send a layer ‘forward’ or ‘back’ relative to other layers with a right click on PC, control click on Macs (or use the key commands shown at right) →



Alt-Text

- Alt-text is a description of an image that conveys the image content and meaning. This descriptive text is attached to the image's file properties.
- People with low or no vision can use assistive technology like screen readers to hear the alt-text description of digital images. When a screen reader reaches the image, it will read the alt-text description out loud.

> OneDrive - Northeastern University > Pictures > Canva



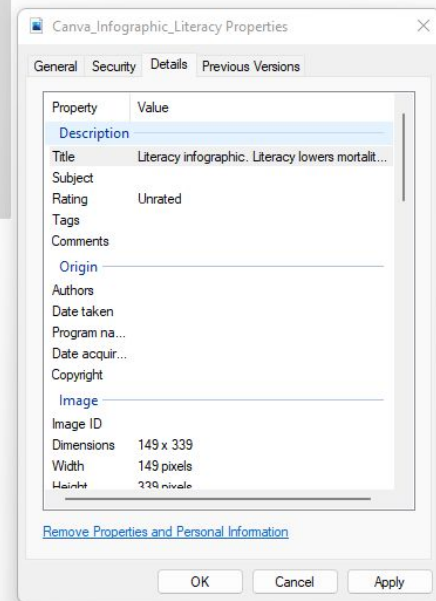
Based on : [Microsoft's How to write effective alt-text](#)



Adding Alt-Text

- You can export your infographic as an image and then add alt-text.
- Find the image in your file directory.
- On PC: Right-click the image and select 'Properties.' Choose the 'Details' tab and click on the 'Title' field.
- On Mac: Control-click the image and select 'Get Info' on Macs, then edit the 'Comments' field.
- Write a description of and insights from your infographic.

> OneDrive - Northeastern University > Pictures > Canva



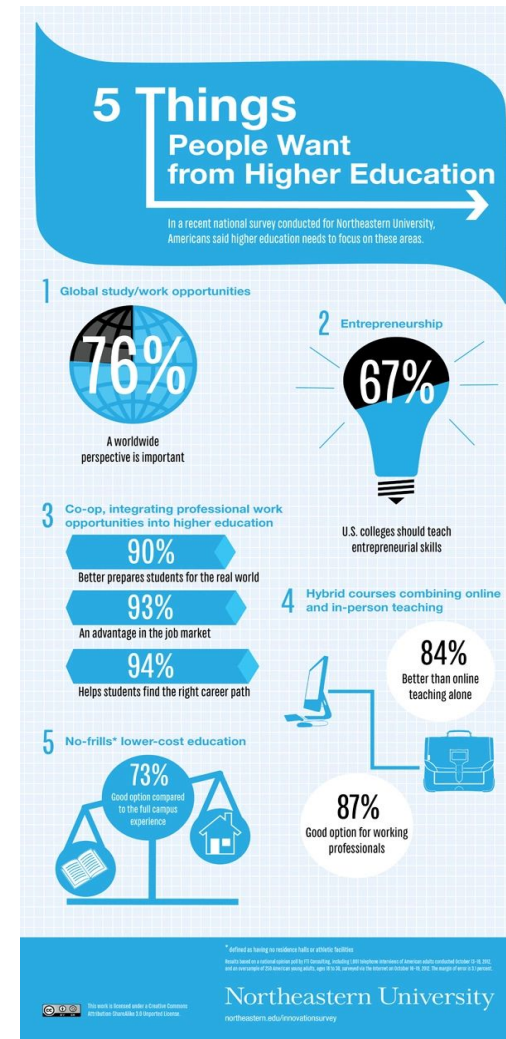
Example: Alt-Text

What are 2-3 takeaways from this infographic?

What information do you think is important to include in alt-text for this infographic?



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Discussion: Accurately Representing Data in Visuals and Infographics

—Developed in collaboration with BARI



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Data Presentation Tips

- **Create your own tables**, or make sure to use only images that are shared with permissions that support reuse—and always cite your sources!
- **Be sure to present your data *accurately***—be mindful that your charts, graphs, maps, and infographics are scaled and structured to present data and conclusions *completely* and *correctly*.
- **Use visual representations of numbers**—this will help concretize abstract concepts.
- **Label judiciously**, but don't overwhelm the viewer with dense text.
- **Beware of trying to make too many points in one graphic**—focus on the big takeaways.



Limitations of Some Data Presentation Methods: Charts, Graphs, Diagrams, Maps

- The **structure** and **scale** of charts and graphs could be **manipulated** to amplify or diminish differences.
- **Different types** of graphs and charts work better for some types of data than others—for example, a pie chart and a line graph might not both be able to represent the same data accurately.
- A chart with **too much information** will be difficult to understand, but **too little information** could be an indication that data has been cherry-picked to support an argument.
- There is **limited space** in an infographic for in-depth analysis; nuances can be flattened and obfuscated.



Misrepresentation of Data

From D.B. Resnik, in the *International Encyclopedia of the Social & Behavioral Sciences*, 2001:

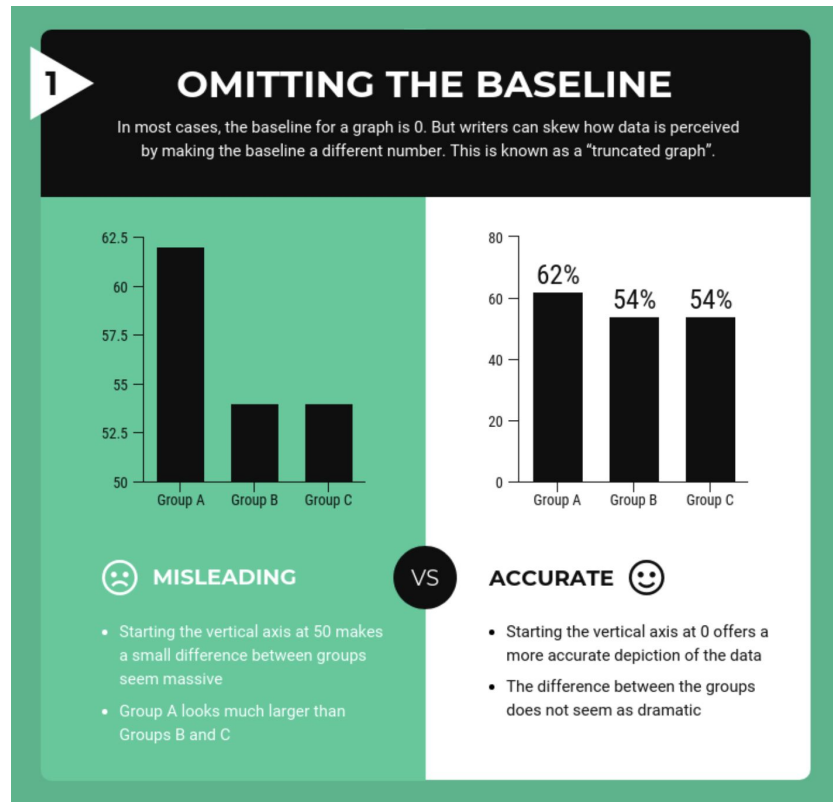
“The concept of ‘misrepresentation,’ unlike ‘fabrication’ and ‘falsification,’ is neither clear nor uncontroversial. Most scientists will agree that fabrication is making up data and falsification is changing data. **But what does it mean to *misrepresent* data? As a minimal answer to this question, one can define ‘misrepresentation of data’ as ‘communicating honestly reported data in a deceptive manner.’”**

This [online book from The Data School](#) covers some common ways data could be misrepresented at multiple points in the process of gathering, analyzing, and presenting findings on data-based research.



Limitations of Charts, Diagrams, Graphs, & Maps

Consider these questions as you review the examples in this section:



- What **commonalities** do you notice among the more misleading and more accurate versions of graphs and charts in these examples?
- How would you define “**accuracy**” in the context of data presentation? Why is that question essential to ask?
- In what **contexts** does it make the most sense to use these kinds of visuals to present data? Are there other times where they’re inappropriate? How so?

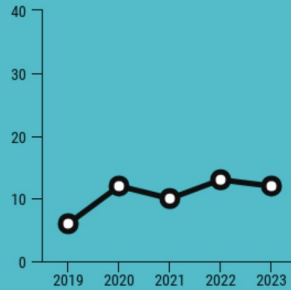


More limitations with presenting data using CHARTS and DIAGRAMS:

2

MANIPULATING THE Y-AXIS

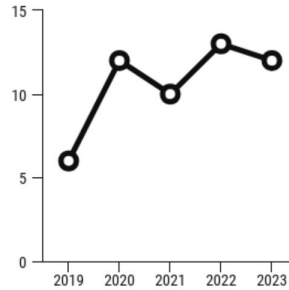
Expanding or compressing the scale on a graph can make changes in data seem more or less significant than they actually are.



MISLEADING

- The scale is disproportionate to the data, making the change over time seem small

VS



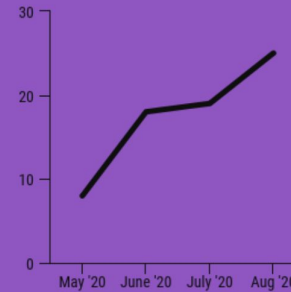
ACCURATE

- The scale is proportionate to the data, showing a greater change over time

3

CHERRY PICKING DATA

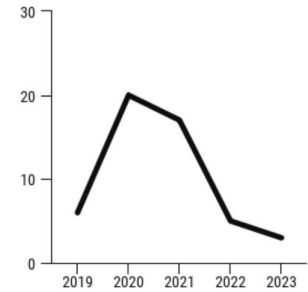
Writers may only include certain data points on their graphs to reinforce their narratives. This can create a false impression of the data.



MISLEADING

- Only a few months out of the year are graphed, depicting an upward trends

VS



ACCURATE

- A much wider date range is graphed, revealing an overall downward trend
- This graphs shows the bigger picture



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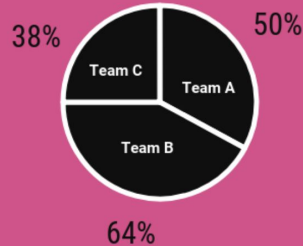
Feel free to ask questions at any point during the presentation!

Limitations with presenting data using GRAPHS and MAPS:

4

USING THE WRONG GRAPH

The type of graph you use should depend on the type of data you want to visualize. Using the wrong type of graph can skew the data. Writers will sometimes use the wrong type of graph on purpose.



MISLEADING

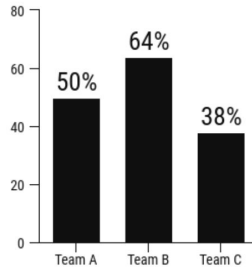
- Pie charts are used to compare parts of a whole, not the difference between groups
- A different type of graph should be used to compare the three teams

VS

ACCURATE



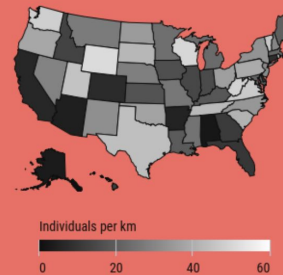
- Bar graphs are better for showing the differences between groups
- This chart is a better visualization of the data



5

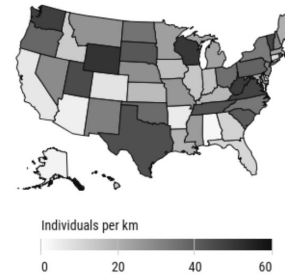
GOING AGAINST CONVENTIONS

Over time, we have developed standards for how data is visualized. Flipping those conventions can make a graph confusing or misleading to readers.



MISLEADING

- Normally, darker shades are associated with density on a map but here, dark has been used to depict lower population density
- This graph can confuse and mislead readers, who expect dark to represent a higher population density



VS

ACCURATE



- This map follows the convention of using lighter shades for lighter density and darker shades for higher density
- Readers will intuitively know how to interpret the data



For Further Exploration

Here are links to the handouts presented in these slides:

<https://bit.ly/infographics-handout>

<https://bit.ly/diti-accessibility>

See also the [Beginner's Guide](#), published by Canva



Your Turn!
Practice creating
an infographic in
Canva.



Thank you!

Developed by DITI Research and Teaching Fellows Kasya O'Connor Grant, Dipa Desai, Emily Sullivan, and Javier Rosario

- For more information on DITI, please see: <https://bit.ly/diti-about>
- Schedule an appointment with us! <https://bit.ly/diti-meeting>
- If you have any questions, contact us at: nulab.info@gmail.com
- Link to Online Materials: <https://bit.ly/fa23-gilreath-canva>

