

# Tips for Data Visualization and Storytelling

*The goal of a graphic is not to make numbers 'interesting,' but to transform those numbers (or other phenomena) into visual shapes from which the human brain can extract meaning.*

-Alberto Cairo

## What are Infographics?

- **Data sorted, arranged, and presented visually.**
- Use design to succinctly tell a story that images, data, or words could not have conveyed on their own.
- Include a narrative that keeps the viewer engaged (as opposed to a list of facts or data points).
- Require little or no additional context to be understood.
- Create an emotional connection to the information that is being shared.

## Questions to consider as you design an infographic:

- What is the story/message you are trying to tell?
  - Finding the story means synthesizing your data around a theme or major idea – what is the big picture?
  - Once you understand this, you can begin to create an infographic that focuses on a specific story and seeks to answer one (or two) questions.
- What is the goal or call or action? Be **purpose driven** in what you create.
  - What does the “end user” care about?
  - What does the “end user” need to know?
  - Make information user friendly (ask: What have users come for?).
    - Design of presentation should be about the user not the designer.
  - What do people want to do after reading the infographic?
  - What do you want people to do with this information?

## Remember...

- Data is important, but emotion drives engagement.
  - What makes the audience curious, passionate, sad, angry, or enlightened?
- Think about function and content **before** you think about aesthetics: graphics should assist reasoning about content.
- We read graphic images top to bottom, left to right.
- *Always* have someone else look at it critically!

# Check your work!

## Tips to assess your **data visualization**

Start Here: Ask yourself these three main questions...

### What's the point?!

What is the headline story the visual is attempting to tell?

### What is the **call to action**?

Does the visual **convey the message alone**, without addition context or story?

And then look through the details...

#### NUMBERS

- What is the data point?  
Is it clear how the numbers have been analyzed?  
Do you know the **n**, if applicable?

#### CONTEXT

- Do you know who is presenting the data?  
Does that inform the call to action?
- Do the numbers make sense?
- Do any comparisons help to add meaning?

#### VISUAL

- Is the visual decluttered? (Have unnecessary lines and legends been removed?)
- Could it be simplified? How?
- Is the story summarized in the headlines?  
Are captions or annotations added when more details are needed?
- Are labels used to make it easy for the audience to understand what they are looking at?
- Does text use the following to highlight what should stand out to the audience?
  - Color
  - Width
  - Size
  - Color intensity
  - Position
  - Grouping for emphasis
- Are graphs or images used effectively to show context and make connection?

How did you do?



# Check your work!

## Tips to assess your **data storybook**

Start Here: Ask yourself these three main questions...

### What's the point?!

What is the key point the story is attempting to make?

Does the story both **evoke and resolve anxiety?**

What is the **call to action?**

And then look through the details...

- Do you use emotionally engaging language?
- Do you employ repetition and redundancy, particularly with the main conclusion and message presented?
- Have any visuals passed the data visualization checklist?
- Does the design of the story match the audience and the "café" model?
- Does your story follow a linear model?
- Does it follow the typical story arc?  
Does it contain a beginning, middle and end?

How did you do?



## Considerations for publishing and sharing: Creating a timeline

The publishing and sharing of data should be grounded in your logic model and theory of change – making sure to consider the purpose of what you are sharing and what you anticipate will come out of sharing the data.

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<b>Collection</b>	What data are you collecting? When are you collecting it?
<b>Entry &amp; Analysis</b>	How long will it take to enter the data? How long will it take to analyze the data?
<b>Reporting</b>	Who are you reporting or presenting to? (Audience) What is the format? What data will you present? How long will it take you to create the presentation format? What do you want people to get from your report? When is a good time to release or share?
<b>Sharing</b>	Who do you want to see your report/infographic? What do you want people to get out of it? What action do you want to prompt?

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## Resources

### Create infographics online:

Easel.ly <https://www.easel.ly>

Piktochart <https://piktochart.com/>

infogr.am <https://infogr.am>

*Free options, with potential to expand capabilities through paid version.*

### Chart templates:

Juice Chart Chooser <http://labs.juiceanalytics.com/chartchooser/index.html>

*Download chart templates in MS Excel or Power Point.*

### Basic data analysis:

DataBasic <https://www.databasic.io/en/>

*Upload files for word counts, word clouds, text comparison and basic spreadsheet analysis.*

### Data Visualization (V) and Storytelling (S):

✓ Stephanie Evergreen. <http://stephanieevergreen.com/>

✓ Stephen Few. <https://www.perceptualedge.com/>

S/V Bill Shander. <https://beehivemedia.com/>

✓ Edward Tufte. <https://www.edwardtufte.com/tufte/>

S Christina Wodtke. The Shape of Story. <http://eleganthack.com/the-shape-of-story/>

