MASTERING DATA VISUALIZATION FOR HIGH-STAKES PRESENTATIONS

A non-technical look at how to approach data visualization in your most important presentations
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Data Visualization

/ˈdā-ˌta vi-zhə-ˈwə-laˈzə-shən/ noun.

A simplified way of relaying complex concepts quickly and with their full meaning.

Done right, it’s more impactful than words and standalone numbers, and more meaningful than graphics and images alone.

It’s the key to selling, arguing, persuading, and otherwise convincing someone to think, feel, or believe the message you’re conveying to them.

But there’s a lot more to data visualization than pairing concepts and figures with eye-catching imagery. While these are the core tenants of good data visualization, so many more factors determine the success of the message.

Does it inspire action or emotion? Can everyone understand what you’re trying to say? Is there a theme or motif to reinforce the concept?
The mode of presentation is often more important than the meaning behind it—if the imagery isn’t effective, the message is lost.

Data visualization can make or break a presentation. Consider the intangibles and measure them against the purpose of imagery to get a real understanding of what a truly good presentation data visualization looks like.

This guide explores how to guarantee the success of a presentation with data visualization that’s on point.
A NON-TECHNICAL LOOK AT HOW TO APPROACH DATA VISUALIZATION IN YOUR MOST IMPORTANT PRESENTATIONS.

1. CONSIDER CONTEXTUAL PRESENTATION OF DATA
Bar graph or pie chart? Scatterplot or line graph? What about a stacked area chart?

There are multitude of graphing options out there for aggregating data, but they’re not all created equal.

While a graph is a better visual than a table or verbiage, the wrong graph will make your message more confusing than it needs to be.
If a graph is your preferred method of data visualization, make sure the context of the data is properly portrayed in the right graph:

**COMPARISON**

Use comparison charts to represent change among items or over time. Bar graphs and line graphs are predominant modes of comparison. These types of graphs make it easy to show fluctuations or growth.

**DISTRIBUTION**

Distribution graphs are great for categorical data. Histograms, scatter plots, and even 3D area charts reign supreme here. Distribution data is usually plentiful, showing the relationship between variables.

**COMPOSITION**

Need to show the makeup of specific variables? Column and stacked charts are a great option, along with pie charts and waterfall graphs. These graphs can show both change over time and static differences.

**RELATIONSHIP**

Bubble charts and scatter plots are ideal for showing the relationship between variables—as many as four depending on the nature of your data. They’re more complex, but capable of relaying tremendous amounts of information.
These types of charts can also be stylized.

Showing parts of a whole in a creative outline or putting bubble data on a map are just two examples of taking data off the X and Y axes to make it more visually engaging.

Keep in mind, graphs and charts generally represent large subsects of data.

A few simple data points on a graph may be underwhelming, which opens the door to more visual representations. Substitute pictures for data points, change the scale, and experiment with color to deliver quantitative results in a qualitative context.

Here are three examples of stylized visualizations:
Imagery at random convolutes the message.

As a basic example, imagine showing a distribution of different dog breeds using jars of candy to represent quantity. It doesn’t make any sense. The representation of data might be proportionate and accurate, but the context is all wrong. Replace the candy with dog bones and suddenly it makes a lot more sense!

The lesson here is to have a motif or theme, and to use that to create context that tells a story.

The visual should lend itself to the nature of your data and to the broader understanding of that data. Consider a few more basic examples:

- Using car icons in varying colors to represent the distribution of make/model in a presentation about auto production last year
- Using stacked soda cans to form a bar chart showing comparison between different brands in a user feedback survey
- Using different foods arranged in a pie chart to show diet composition in a study about diets among kids

The imagery matches the context of the data and the narrative of the presentation itself. It acts as a bridge, helping audiences absorb information to reinforce their understanding and feelings about what’s presented. People connect with a greater narrative more than a series of well-presented arguments. **Combine both, and you’ve got a winning presentation.**
Stylized Example #1: Comparison Visualization

Before

Famine Deaths Have Plummeted Globally

Deaths per million people

1960s: 5,470 deaths per million people
2000s: 460 deaths per million people
2010-2016: 40 deaths per million people

After

Famine Deaths Have Plummeted Globally

1960s: 5,470 deaths per million people
2000s: 460 deaths per million people
2010-2016: 40 deaths per million people

Sources: Our World in Data, US Census Bureau
Stylized Example #2: Composition Visualization

Almost half of new cars sold in Norway are electric

Before

After

Almost half of new cars sold in Norway are electric

NISSAN 8.5%
Volkswagen 7%
BMW 6%
TESLA 6%
MITSUBISHI 5%
VOLVO 3%
RENAULT 2%
HYUNDAI 1.5%
KIA 1.5%
Others 9%

49.5%
### Stylized Example #3: Relationship Visualization

#### Before

**California is Driving the EV Revolution**

<table>
<thead>
<tr>
<th>State</th>
<th>Electric Vehicles Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rest of USA</td>
<td>175000</td>
</tr>
<tr>
<td>California</td>
<td>180000</td>
</tr>
<tr>
<td>Washington</td>
<td>19100</td>
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<td>Virginia</td>
<td>4300</td>
</tr>
<tr>
<td>Ohio</td>
<td>3100</td>
</tr>
</tbody>
</table>

#### After

**California Is Driving the EV Revolution**

Electric vehicles sold

- California: 180,000
- Florida: 16,600
- Texas: 14,400
- Massachusetts: 5,900
- Arizona: 10,900
- Oregon: 9,500
- New York: 9,100
- Nevada: 8,800
- North Carolina: 8,800
- Washington: 7,900
- Georgia: 7,800
- Colorado: 7,400
- N. Jersey: 7,300
- Illinois: 6,600
- South Carolina: 6,400
- Minnesota: 5,400
- Maryland: 4,600
- Tennessee: 4,400
- Michigan: 3,800
- Missouri: 3,600
- Wisconsin: 3,500
- Kansas: 3,500
- Texas: 3,200
- Rest of USA: 175,000

Source: US Department of Energy
A NON-TECHNICAL LOOK AT HOW TO APPROACH DATA VISUALIZATION IN YOUR MOST IMPORTANT PRESENTATIONS.

2

REINFORCE YOUR AUTHORITY
Data visualization is as much a psychological tool as it is an analytical, informative resource.

There are inherent opportunities within data visualization to cement your credibility as an authority on the subject you’re presenting. It goes beyond the data itself.

Branding is the easiest way to cultivate credibility.

Creating a cohesive presentation experience through colors, fonts, verbiage, and on-brand imagery elevates the message—but branding adds an element of professionalism that lends itself to credibility. It’s the equivalent of dressing your presentation up in a suit and tie, instead of jeans and a t-shirt.
Authority also comes from the quality of your imagery and data.

Stock photos, poorly drawn graphics, and generic imagery don’t have the same appeal as branded graphics, custom images, and original artwork.

QUALITY IMAGERY

It shows you’ve invested the time, energy, and resources in a presentation meant to captivate your audience.

QUALITY DATA

Consider the contrast between data that’s a few years old and only semi-relevant, juxtaposed against brand-new data that illustrates your message. Few things create an ethos like well-cultivated, well-presented data.
PERFECT THE VISUALIZATION
At the end of the day, the way in which your data appears in the presentation matters most.

Data visualization is powerful, but easily cheapened. Here are a few tips for perfecting the portrayal of data:

1. Limit the amount of data you’re visualizing per slide. **Less is more!**

2. **Make data visualization the focal point** of the slide. Keep distractions to a minimum.

3. **Keep imagery simple and to-the-point.** Complexities take longer to digest.

4. **Limit the amount of data presented** to focus only on critical, useful information.

5. Use data and visualizations **relevant to your audience.**
Spending time on the minutia of data presentation forces you to think about it from the audience perspective.

You, the presenter, know the importance of the data and how it contributes to the larger argument.

Closely examining your presentation puts you in the audience’s shoes.

**SOLUTION:**

**BE SURE TO ASK YOURSELF:**

How will my audience consume this data without the background knowledge I have?
A NON-TECHNICAL LOOK AT HOW TO APPROACH DATA VISUALIZATION IN YOUR MOST IMPORTANT PRESENTATIONS.
Data presentation is best examined from the top down.

Consider the biggest concepts and continue to narrow your focus down to the smaller elements. This ensures data visualization has good foundation and fundamentals, as well as sound detail.

Use the following roadmap:

- Choose good, relevant data
- Determine the mode of presentation
- Confirm the context of presentation
- Instill authority within the imagery
- Perfect the visualization

How does your presentation's data visualization stack up?

SCHEDULE A FREE Data Visualization consultation
Visual-based data is the single most powerful tool in any slideshow—when portrayed properly.

Following the top-down approach and paying close attention to the factors that go into visualization will distinguish your data and solidify your authority.

It’s the key to influencing your audience and evoking the response you want.