

### Be media sensitive

The reality is that many people who consume visualizations do so via more than one type of device, and often a mobile device is in the mix. Thus, when designing data visualizations, you should beware of the form factor limitations and the responsiveness of your visualization platform. Considering how the visualization will be viewed will help you make sure your visualization reaches its audience.

### Introduction

The definition of "data visualization" often varies depending on whom you ask. For some, it's a process of visually transforming data for exploration or analysis. For others, it's a tool to share analytical insights or invite discovery.

Following these 10 Golden Rules will help you create the most successful data visualizations.

Credit: Lindy Ryan <http://www.dbta.com/BigDataQuarterly/Articles/10-Golden-Rules-of-Data-Visualization-114796.aspx>

### Begin with a goal

Starting with a goal provides the foundation to bring together ingredients of data visualization with a purpose. Whether the goal is prompting a decision or action, or inviting an audience to explore the data to find new insights, the designer is tasked with identifying and conveying the relationships and patterns of the data that best support a well-defined goal.

### Know your data

While almost anything can be turned into data and encoded visually, knowing the context behind data is as important as understanding the data itself. This knowledge will also serve to verify that you have the best data to support your goal.

### Put your audience first

Data visualization is rarely one size fits all, and its message can be lost if it's not customized for its audience. Thus, focus on visualizing what your audience needs to know.

### Choose the right chart

Know the strengths of each chart type and what key features of data they best visualize. Visualizations can work together if more than one is presented in story succession or on a dashboard but remember: Too many often equals too much.

### Chart smart

The ability for a visualization to lead its audience to answers can also occasionally lead to the wrong answers. Data visualizations should not distort, mislead, or misrepresent. Avoid cherry picking data and do not force the data to fit a message.

### Use labels wisely

Give your audience context by including a simple and compelling title. Then, label axes so that they are easy to read and appropriate to the data they display. Minimize the use of legends and other explanatory elements, and allow the visualization to communicate without requiring additional layers of clarification. If you choose to use elements such as annotations or story points, be sure they add value.

### Design to the point

Over-designing makes important information harder to find, harder to remember, and easier to dismiss. The key to designing data visualizations is to be straightforward. Eliminate all the superfluous chart features, unnecessary headers or labels, artsy details, etc. Ultimately, make sure everything on the visualization serves a purpose.

### Let the data speak

The most important component of data visualization is the data. Use visual cues strategically to guide the audience and draw their attention, but let the data tell the story, not the design. A well-planned narrative helps explain the data and adds depth, and aligning the visualization's story with the organization's helps the data speak within a larger, more meaningful context.

### Feedback is a good thing

Take time to fine-tune visualizations by engaging with stakeholders to gather feedback. Reactions from those most familiar with the data, its context, and its audience can provide a quality check before presenting or widely socializing a new data visualization. They might see something you don't or have an insightful idea you could leverage to improve the visualization. Regardless of your definition of data visualization, the goal remains ubiquitous. It's how we help people see and understand data by placing it within a visual context..

