
Why Do We Visualize

We start with a question. Why do we visualize data? We could go back through history to show how visualizing data has been fundamental to relaying and creating common understanding. That is a good exercise to explore in some detail. However, let us focus on the utility of modern visualizations within the context of highly precise mathematical understandings that we may attribute to data.

Within the modern data-driven world, the mathematical skill that is highly regarded is statistics. Statistical analysis forms the basis of most all data classification and data visualization today. So, we may ask if it essential that all who work professionally with data are highly skilled statisticians?

The answer to that question can be delivered in four parts:

1. We should apply sound statistical methods to discriminating, and correlating data
2. We have access to powerful tools to help us apply statistical methods
3. Statistical methods are frequently imbedded within data preparation and data visualization tools
4. Modern data visualization and data preparation tools are increasingly easy to use, yet powerful enough to examine a broad variety of data analysis objectives.