# 7 DIFFERENT GOALS FOR YOUR CHART

A crucial step in building a powerful chart is choosing the right type of chart. A lot of charts don't work because they simply use the wrong type of chart. To avoid this trap, we must ask ourselves a basic question: what's the ultimate goal of our data visual? What do we want to show with our data?

Categories of graphical representation

As it turns out, there's only a limited set of goals we might have for our chart. These goals, sometimes called 'categories of graphical representation', always boil down to the same seven categories.
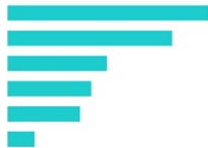
Comparison: in many cases, we want to compare different values for different categories with each other. A bar chart is perfect to do this: the length of the bars shows us the underlying data values, and makes it easy to compare them with each other.

A part-to-whole comparison is comparison's little brother. Rather than directly comparing categories with each other we're comparing the size of a single category with the total size of all categories combined. Pie charts or stacked bar charts are ideal tools for this.

If our goal is to show a distribution, we want to get an impression of how data points are distributed along a certain parameter or dimension. Great charts to study or show distributions are histograms, box plots, density plots or ridgeline plots.

If the dimensions under consideration are spatial dimensions, such as latitude or longitude, we're talking about a spatial distribution - the realm of maps.

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evolution

When one of the parameters in our dataset is time, we're often interested in showing the evolution: how has a certain value changed over time?

Correlation occurs when two parameters are related to each other. For example, if we take a large group of humans and have a look at their height and weight, we will find that, in general, taller people also have a larger weight. Typically scatter plots are used to study correlations, but there are other options as well.

correlation
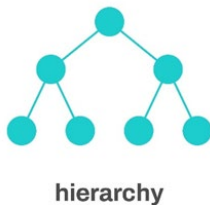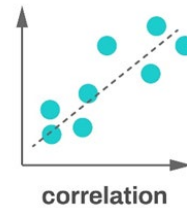
hierarchy

Finally, hierarchy: we might want to show how different parts of a dataset are linked to each other. Maybe there's a parent category with subcategories, and maybe those subcategories are again subdivided into even smaller categories. To show these hierarchies a sunburst diagram, treemap or network visualization might be what we need.

Start with the goal in mind

99% of all the charts we have to make fall into one of these seven categories. Clearly identifying our goal at the start of the creation process will help us find the most appropriate chart type, leading to the most powerful chart.

If you want to know more about visualizing data in the right way, you can check out the other videos in this series. Or I invite you to read my book, Powerful Charts, that will give you actionable insights and practical guidelines to create data visuals that truly engage and inspire your audience.

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