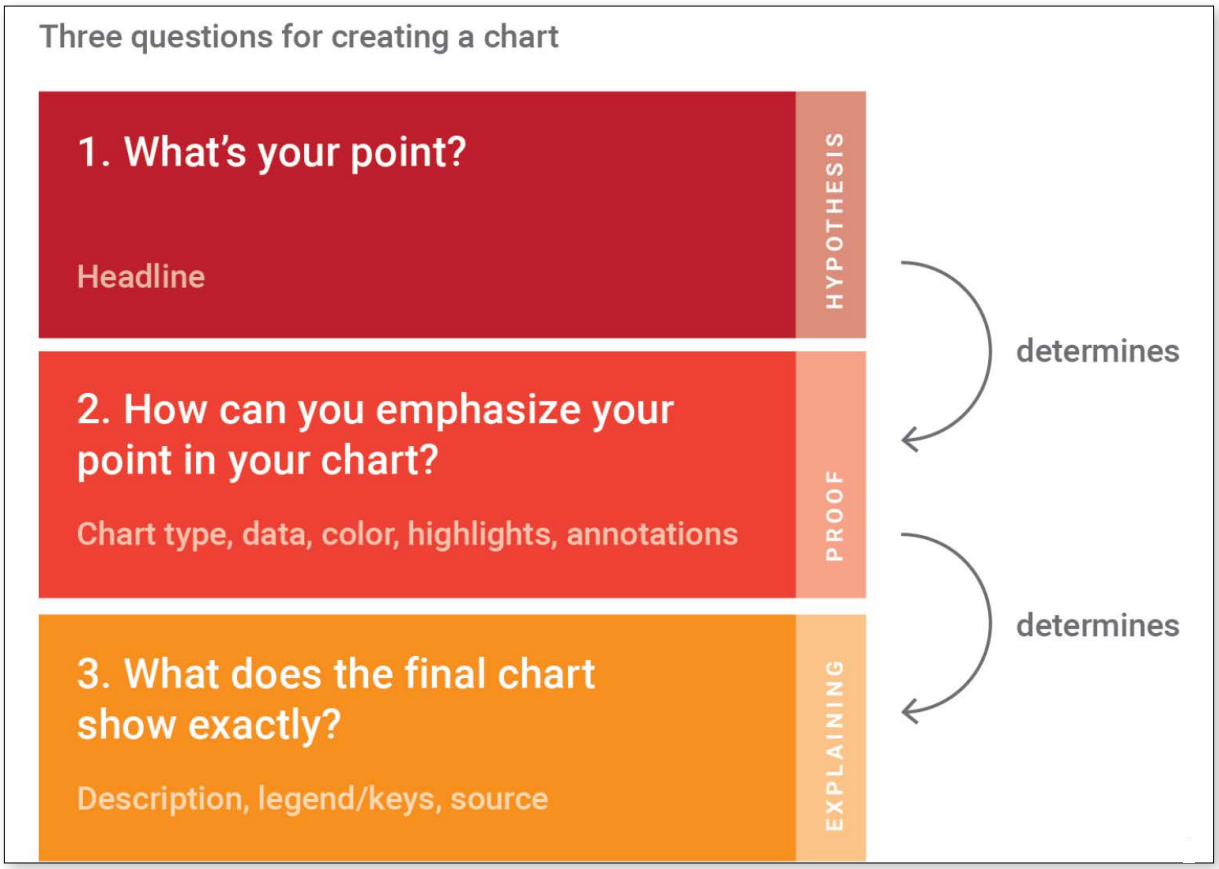
Webinar 5: Data visualization

The exciting new findings from your analysis deserve to be presented as vividly as possible. That's where data visualization comes in!

What do you want to show?

Before you start creating graphics, it's worth thinking about these questions:



Source: https://blog.datawrapper.de/better-charts/

Types of graphics

THE BASICS:

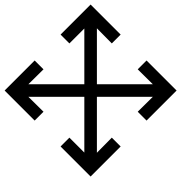
- Line charts: For developments over time
- Bar charts: For comparisons between multiple numbers
- Scatter plot: For comparing two sets of numbers
- Maps: For geographical data

More types: The Data Visualisation Catalogue — Datavizcatalogue.com

Anatomy of a visualization

A chart is made up of many elements which can convey information:

POSITION

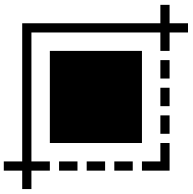


Charts often have a x axis (horizontal) and a y axis (vertical). The position of data points on these axes can convey meaning.

Example:

- The bigger a number, the further right its point is on the x axis
- The smaller a number, the further down on the y axis its point is

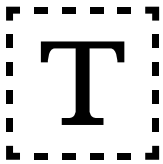
HEIGHT, WIDTH, LENGTH, SIZE



can vary with data values

Example:
The bigger the circle / the higher the bar, the higher the number value

TEXT



Even in graphics, text can be a powerful tool to help get your point across

Headline
Conveys the main finding of the graphic

- ***Example:***
  "Stock X is at its lowest point in ten years"

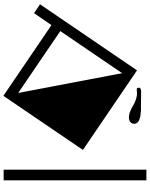
Subtitle
Explains what exactly the chart shows

- ***Example:***
  "Value of stock X in US dollar between 2000 and 2020"

Annotation
Highlights notable aspects in the chart

- ***Example:***
  "On April 10, the stock nosedived after the CEO left the company"

COLOUR



The selection of colours is an art. Depending on your data, different colour scales might be appropriate:

Categorical scale

For unordered groups

Gradient

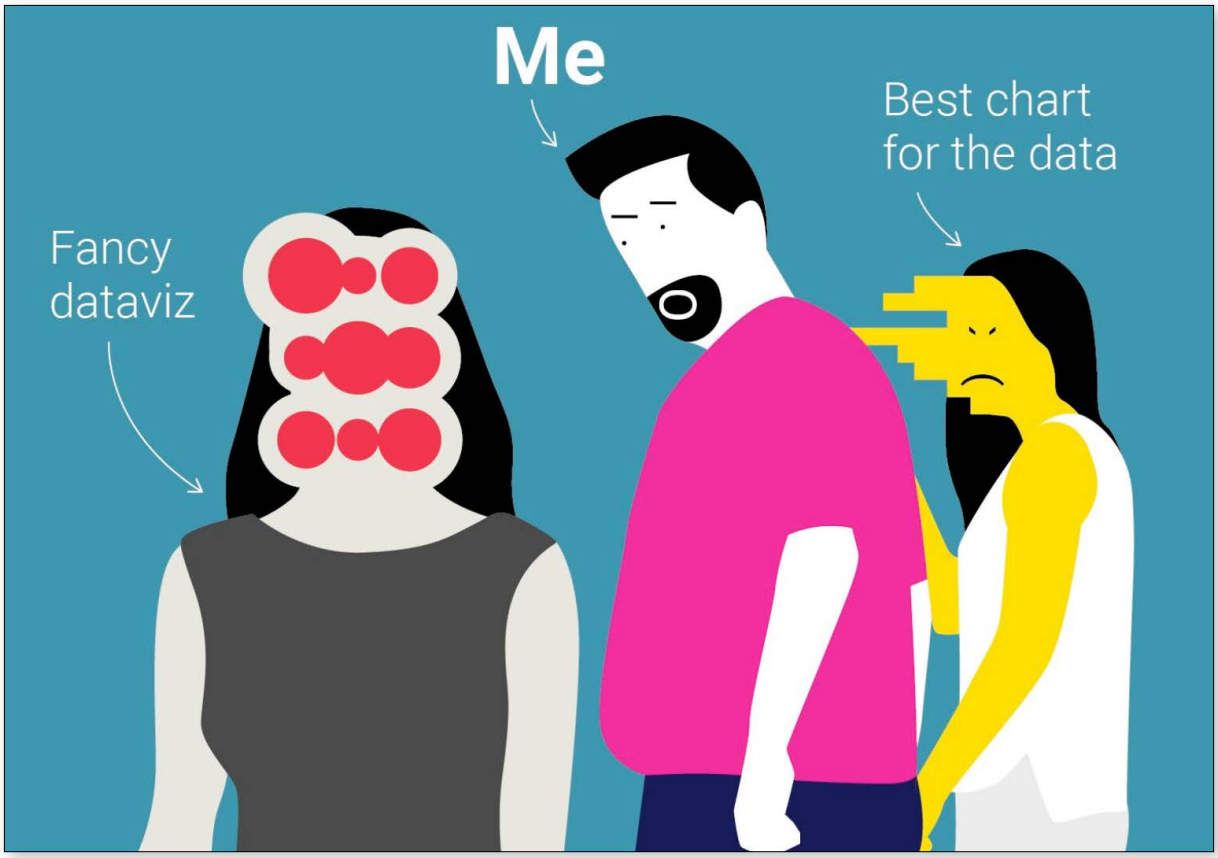
For numbers ranging from a low point to a high point

Diverging gradient

For numbers ranging from negative to positive through a neutral point

TIPS

- **Less is more:** Does colour make the chart more easily understandable or does it distract from the point? Sometimes, a simple one-colour bar chart is the best choice.
- Don't use more than **seven colours**, otherwise they'll be difficult to tell apart
- Use **high contrast** to ensure your graphic is clearly legible
- Consider **colour blindness.**
  Many people, for example, can't tell red and green apart



TUTORIAL

- How to pick more beautiful colors for your data visualizations — Datawrapper.com

TOOLS

- Colorbrewer — Colorbrewer2.org
- Colorpicker for data — Tristen.ca

Inspiration

- The Data Visualisation Catalogue — Datavizcatalogue.com
- Awards Showcase — InformationisBeautifulAwards.com
- Data Is Beautiful — Reddit.com
- Data Journalism Awards 2019 Shortlist — DatajournalismAwards.org (Archived)
- Data Journalism Awards Project Database — DatajournalismAwards.org (Archived)

Tools

Create your own charts with these handy tools:

CHARTS

These all-in-one tools are specifically designed for data visualization

- Datawrapper: Developed for newsrooms, free for personal use
- Flourish: More complex chart types, free for personal use
- FastCharts: Fewer features, developed by the Financial Times, free
- … and many more.

DESIGN TOOLS

Vector graphics tools like Adobe Illustrator, Figma (the web-based alternative) or Inkscape (the free, open source alternative) allow you to create anything – including infographics and data visualizations.

FIND MORE TOOLS

Data journalism tool collection — Journocode