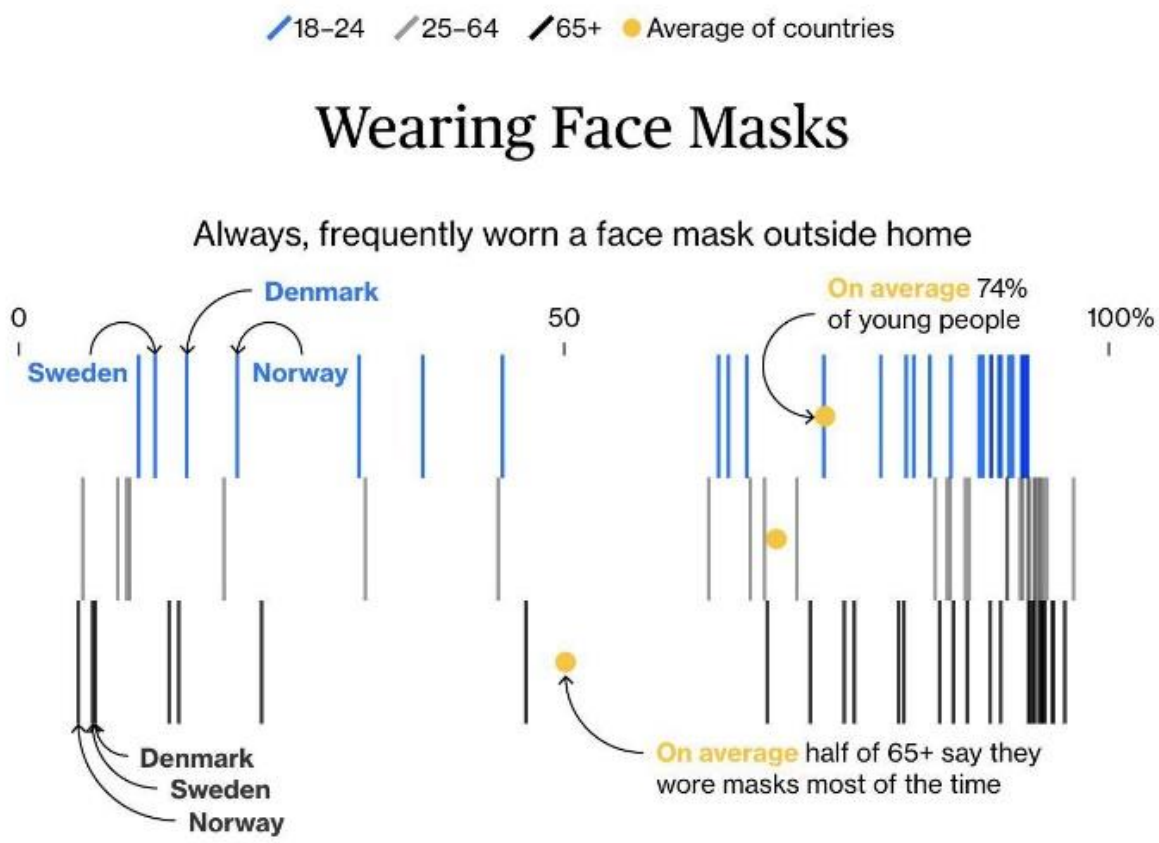
Figure 1

Chart showing the adoption of masks across countries



Note: The chart shows adoption of masks across all age groups rising dramatically in many countries over time. From, Bloomberg-Europe edition, by E. He and L. Williams, n.d. (https://www.bloomberg.com/graphics/2020-opinion-coronavirus-young-people-spread-care-about-social-distancing/) Copyright 2022 by Bloomberg L.P.

Reference

Bloomberg-Europe edition. (n.d.). *Young People Care More About Covid Than You Think.* https://www.bloomberg.com/graphics/2020-opinion-coronavirus-young-people-spread-care-about-social-distancing/

The visual structure does appear uncluttered owing to the whitespace. However, it is difficult to understand that the vertical line segments are discrete values denoting a country each mapped along the horizontal axis. The age ranges on the x axis are non-proportional and have been plotted on top of each other without any spaces.

Decoding this chart is a difficult task. While overall the data-ink in this chart is quite balanced, issues of chart junk are present. For example, the countries as discrete values are sometimes overlapping, maybe it would have been better to use a different shape, maybe dots. This overlaying also forms darker lines, so there is uncertainty about how many countries lie therein. Maybe, the graphical distortion could maybe be minimised if a y-axis labelled or even present. Data labels also are overlapping the x-axis which confusingly appears on the top of the chart. The colours for the two age categories 25-64 and 65+ could have been more distinct instead of similar colours. Given the subject of the source article authors probably wanted to highlight the 18-24 age group and have purposely chosen a brighter colour.

While three countries namely Sweden, Denmark and Norway have been labelled, labels are missing for all the other countries represented. However, this chart would still be unreadable if all these countries were labelled. Country labels are also missing for the age category 25-64, while they appear in the other two categories. Category label is also missing in the legend.

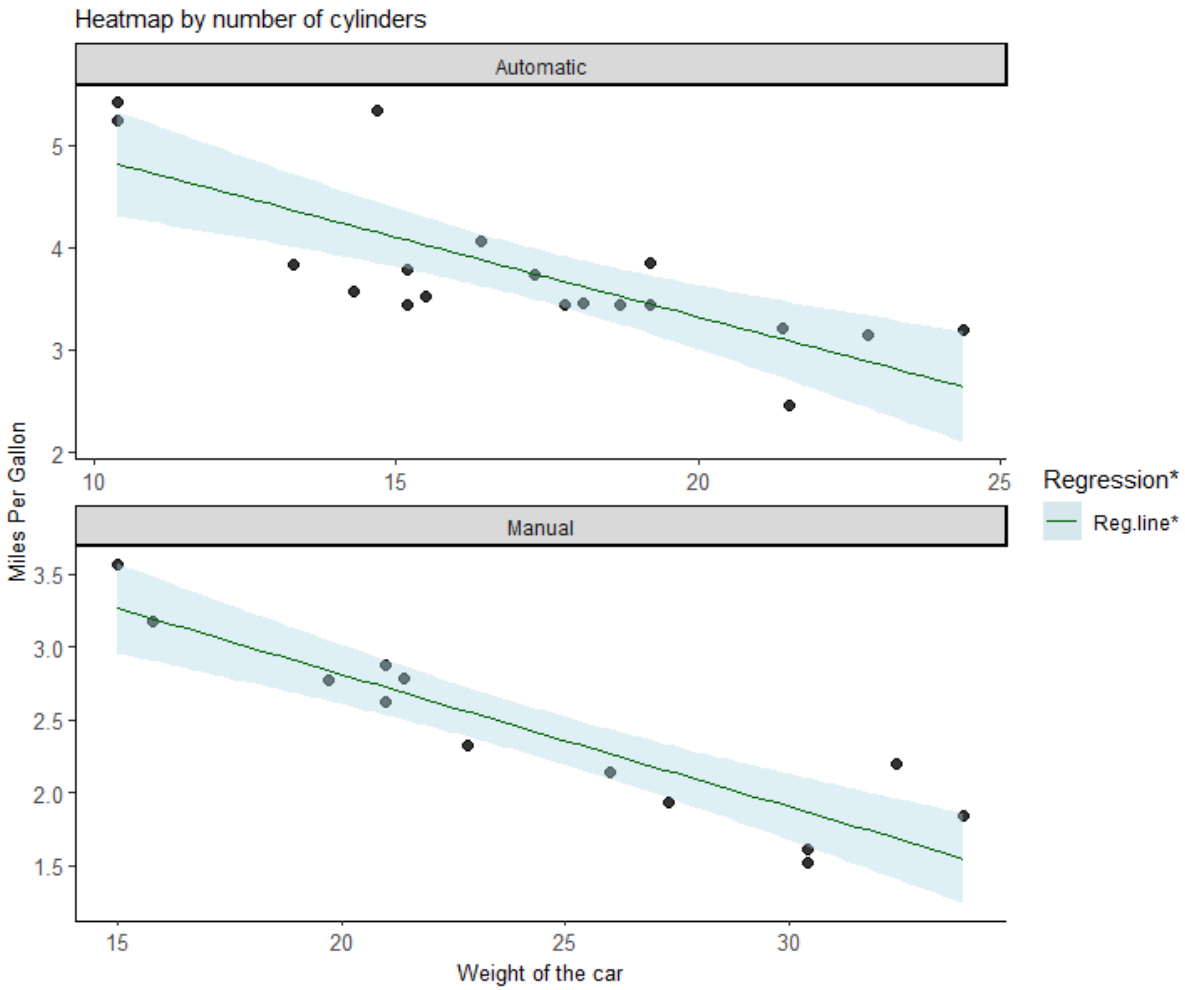
Average response to the question denoted by the yellow dot seems to be an important data point. The labels for these dots are not consistent and could have been removed and articulated better in the legend. However, looking at the 65+ age category, it is unclear if it is actually - ‘averages’, the yellow dots are showing.

The chart title and caption are not descriptive enough to understand the data or the context. The caption ¨*Always, frequently...*¨ adds to this confusion. The legend is not easily found and appears above the chart title. The chart itself is missing source or sample size information.

Part 2. Graphic design

Figure 1.

Relationship between Weight, Transmission and Cylinders on Mileage of a Car



Note: This figure demonstrates the relationship between the Weight of the car, its Transmission type, and number of Cylinders, to its mileage (Miles Per Gallon).

*The regression line shows the relationship between the weight of the car and mileage at 95% confidence interval.

*The data is based on the mtcars default dataset that is provided by Rstudio

Gestalt principles and visual structure

The visual structure of the chart is based on Gestalt principles. The chart comprises 3 variable their relationships can be easily understood by looking at the graph. The is use of whitespace and contrasting colours to make it easy to read and understand.

Decoding and operations

Elements like the direction of relationships is clearly mapped using the regression line, across two different categories. The axes, headers and legend are explicit. There are no overlaps between the points and all the values are clearly visible.

Chart junk and data ink

The data ink ratio is low with only essential elements across all variables in the chart. Maybe the chart headers could have been white background with only the black text. However, the grey background is preserved to highlight these headers. The legend for regression line could have been labelled with the details explained in the notes section. However, doing this would have made the chart space smaller, so the labels had been shortened to accommodate this.

Graphical data integrity and lie factor

Starting the axis of the chart at 0 would make it difficult to highlight the dispersion of the values and their relationship clearly. However, the Axis are labelled and not manipulated deliberately to skew the data.

Annotation and standalone readability

The chart title, subtitle, axis labels, legend, and caption provide all the information required to understand the data context. Relationships can be clearly understood between the different variables and inferences may be made based just looking at the chart.