A photograph of a cluttered desk. In the foreground, there's a box with a horse illustration and a checkered pattern. Next to it is a pair of orange-handled scissors. The desk is covered with various papers, some crumpled, and a large pile of colorful pencils. A dark grey rectangular box with white text is overlaid on the right side of the image. In the top left corner, there are two overlapping geometric shapes, one blue and one green.

Clutter is your  
enemy!

Chapter 3  
Storytelling with Data  
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Liliane Effoudou

## Gestalt principles of visual perception, or how the brain processes information

We assume that objects are related because of:

Proximity: being close together.

Similarity: consisting of the same shape, color, orientation or size.

Enclosure: being inside a 'box'.

Closure: Perceiving a set of different elements as a single shape, even though parts may be missing.

Continuity: creating a path where one may not exist.

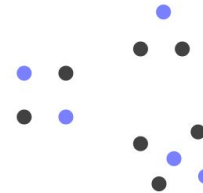
Connection: being connected together.

## GESTALT PRINCIPLES OF VISUAL PERCEPTION

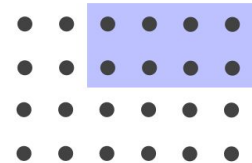
PROXIMITY



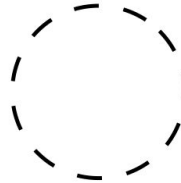
SIMILARITY



ENCLOSURE



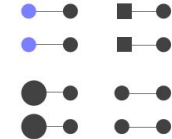
CLOSURE



CONTINUITY



CONNECTION





## Cognitive load

Cognitive load refers to the mental effort required to learn new information. Since the human brain does not have an infinite amount of this space, more information than necessary would only lead to confusion and would ultimately result in the information not going in.

### What can hinder a perfect flow of information?

Clutter. Clutter are visual elements that take up space but don't increase any understanding. It makes the visuals appear more complicated than necessary.

# Examples of clutter:

## Non-strategic use of contrast



The legend is confusing, the colors and shapes are distracting.

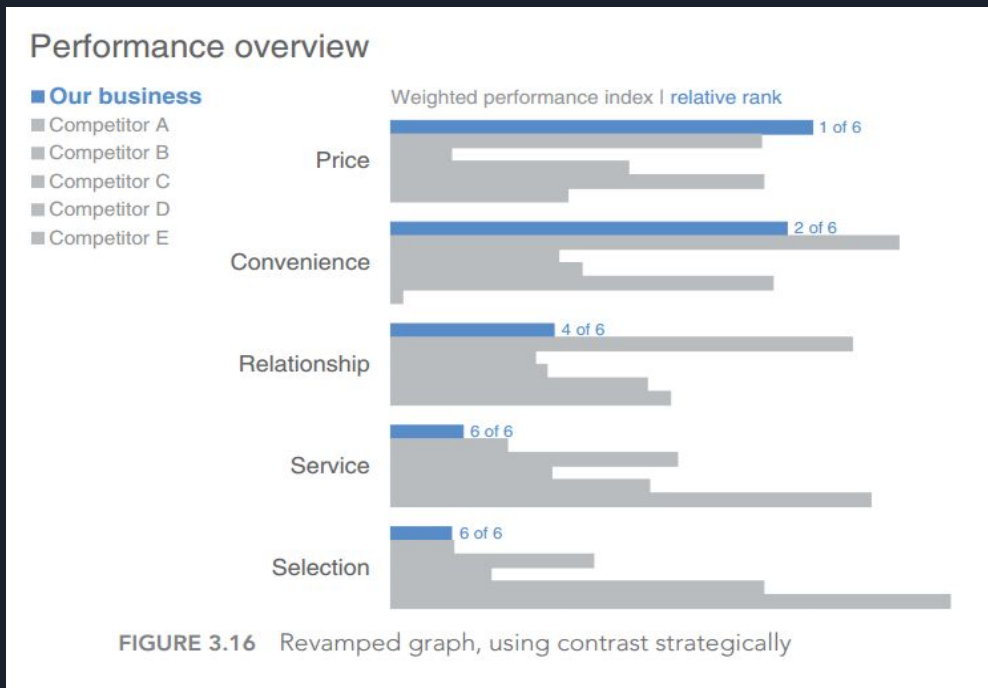
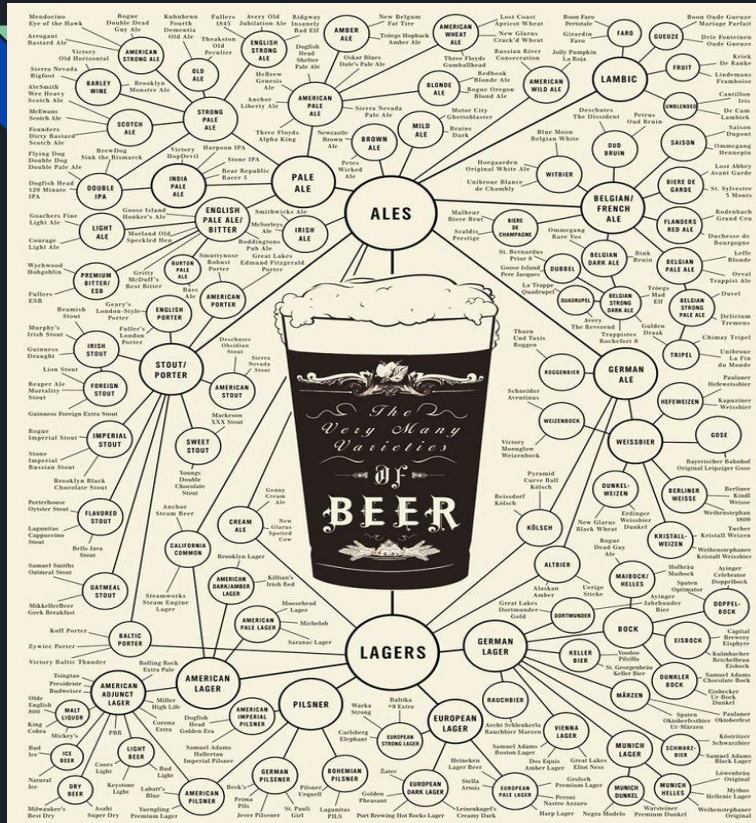


FIGURE 3.16 Revamped graph, using contrast strategically

The data is arranged cohesively, and in order.



## Lack of Visual order



Cluttered chart: data is a little over the place and needs to be explained to be read clearly, and is monochromatic.



Cleaned chart: The chart is properly aligned, a little bit of color is added for distinction between the values, and contents that are connected are next to one another.

# Decluttering solutions!

Original Chart:

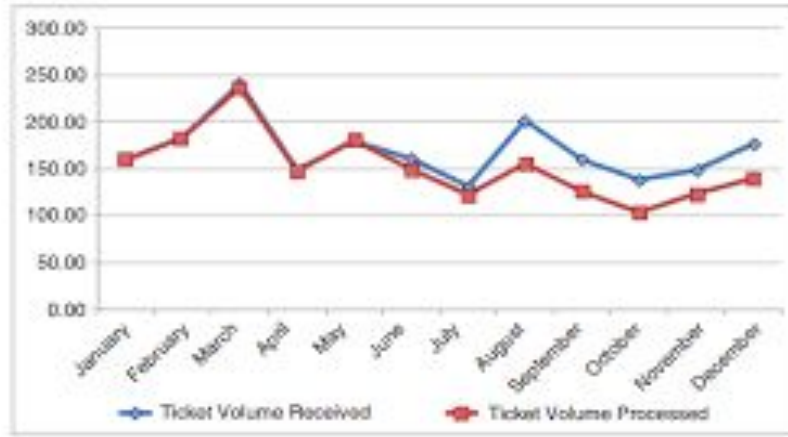


FIGURE 3.17 Original graph

- Removing chart borders
- Removing grid lines
- Removing data markers
- cleaning up axis labels
- labeling values correctly and attaching them where they belong.
- Using the same color for the same value.

Final chart:

Clean and organized, the data is clearly labeled, the white space is used to emphasize the information we need to see, the abbreviated months offer us a simple layout, and the chart is pristine.

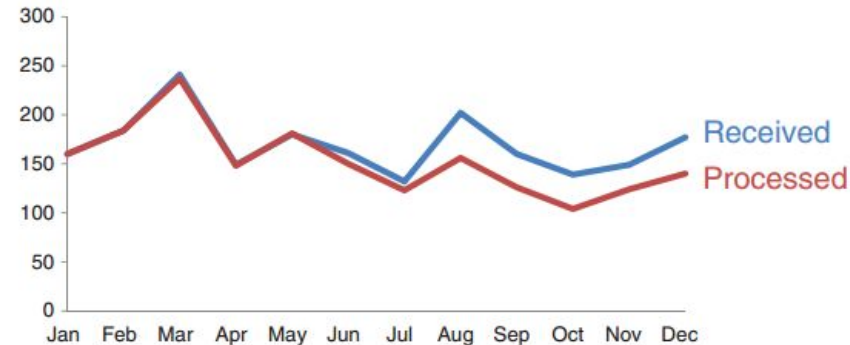


FIGURE 3.23 Leverage consistent color