


VISUALIZATIONS Cheat Sheet

Base on **Storytelling With Data**
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The Importance of Context

- Narrow your target audience
- Your relationship with audience
- Clear purpose (What you want)
- Communication mechanism
- Desired tone


Gestalt Principles




Proximity
Objects close together belong to a group




Similarity
Similar objects are related or belong to a group




Enclosure
Objects enclosed together belong to a group



Closure
Like things to be simple & fit in the constructs



Continuity
Seek the smoothest path and create continuity




Connection
Objects connected are a part of a group

Think Like a Designer

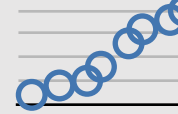
- Affordances**
- Highlight the important stuff
 - Eliminate distractions
 - Create a clear visual hierarchy of information
- Accessibility**
- Don't overcomplicate
 - Text
- Aesthetics**
- Acceptance**

Choosing an Effective Visual

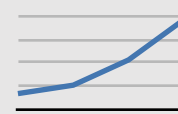
91%



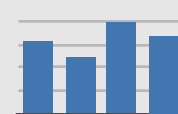
Simple text
Just a number or two to communicate



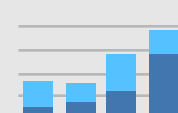
Scatterplot
Relationship between two things




Line (standard line & slopegraph)
For continuous data



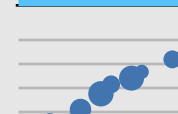
Bar
Need zero baseline




Stacked bar
Subcomponent pieces within categories



Stacked Area
Continuous data & subcomponent pieces



Scatterplot with Size
3-dimension data (4D can add colors)



Heat map
For mixing the detail can include in a table

⋮

Never use:
pie chart, donut chart, 3D, secondary y-axis...

Focus Audience's Attention

Orientation	Shape	Line length	Line width
Orientation	Shape	Line length	Line width
Curvature	Size	Added marks	Enclosure
Curvature	Size	Added marks	Enclosure
Curvature	Size	Added marks	Enclosure
Intensity	Hue	Spatial position	Motion
Intensity	Hue	Spatial position	Motion
Intensity	Hue	Spatial position	Motion

Form an Appropriate Storytelling

- How to Write with Style:**
- Find a subject you care about.
 - Do not ramble, though.
 - Keep it simple.
 - Have the guts to cut.
 - Sound like yourself.
 - Say what you meant to say.
 - Pity the readers.
- Tactics to help ensure that your story is clear:**
- Horizontal logic
 - Vertical logic
 - Reverse storyboarding
 - A fresh perspective

Organize a Reasonable Structure

- Understand the context:**
- who
 - what
 - how
- Choose an appropriate display**
- Eliminate clutter:**
- De-emphasize the chart title.
 - Remove chart border and gridlines.
 - Push the x and y-axis and labels to the background.
 - Remove the variance in colors between the lines.
 - Label the lines directly.
- Draw attention where audience focus**
- Think like a designer:**
- Make the visual accessible with text.
 - Align elements to improve aesthetics.
- Tell a story**

Final Thoughts

- Learn your tools well.
- Iterate and seek feedback.
- Devote time to storytelling with data.
- Seek inspiration through good examples.
- Have fun and find your style.