Datavis Workshop

WWCode

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Why visualize

- A picture is worth a thousand words

- Our brains are made to process visual information in parallel and pre-attentively
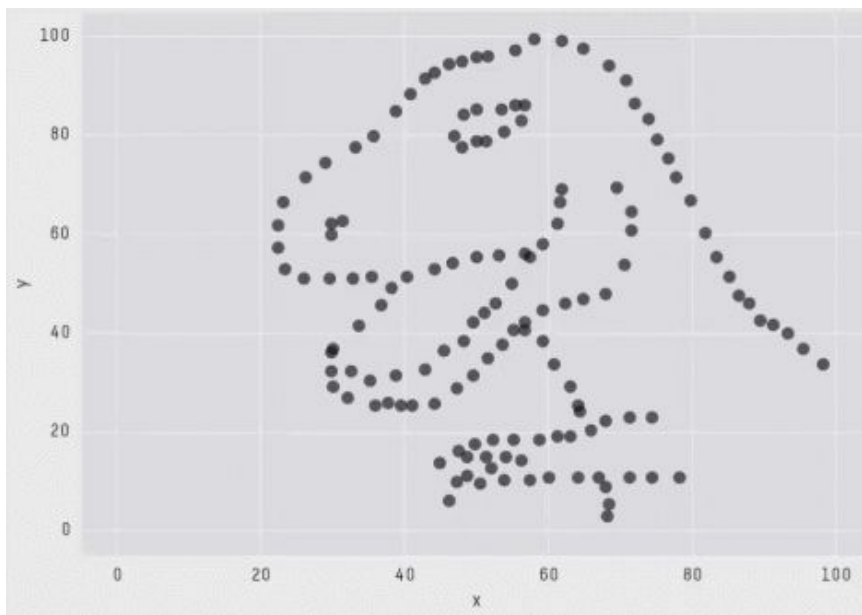
- Intuitive communication tool

Usage of datavis

- Explore data

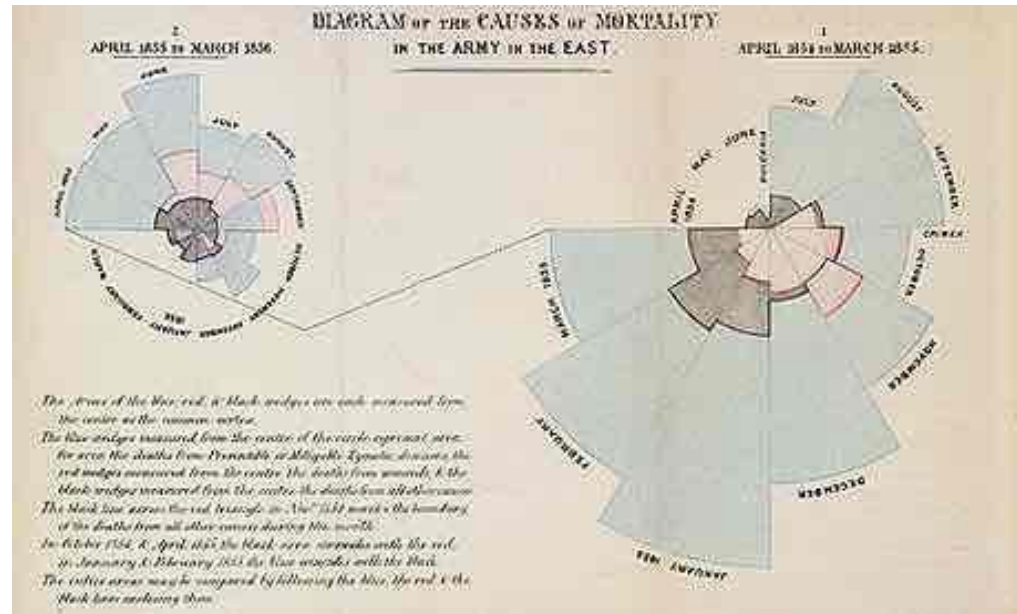- Communicate findings

- Persuasion

- Just for fun

Why not raw data

X Mean: 54.2659224
Y Mean: 47.8313999
X SD   : 16.7649829
Y SD   : 26.9342120
Corr. : -0.0642526

The invention of visual form

DIAGRAM of the CAUSES of MORTALITY IN THE ARMY in the EAST

Read more about Nightinggale's coxcomb chart

Data types

Categorical -- "keys"
- Singapore, France, Argentina

Ordinal -- categories with intrinsic ordering
- Awesome, average, lackluster

Quantitative -- numbers
- -1.5, 3.14

Spatial -- inherently 3D
- Maps, physical topologies, etc

Time series
- 2016, 2026, 2036, 2046

Visual Encodings

	Quantitative		Ordinal		Nominal	
More Accurate	Position		Position		Position	
	Length		Density		Hue	
	Angle		Saturation		Density	
	Slope		Hue		Saturation	
	Area		Length		Shape	
	Density		Angle		Length	
	Saturation		Slope		Angle	
	Hue		Area		Slope	
Less Accurate	Shape		Shape		Area	

Color palette

sequential

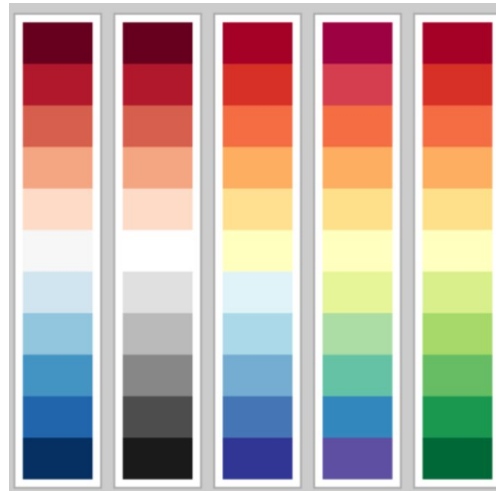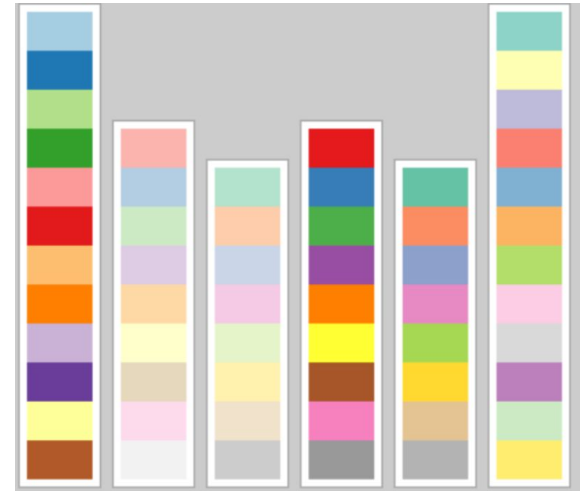diverging

qualitative

Chart types

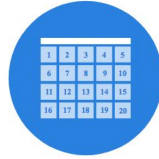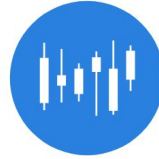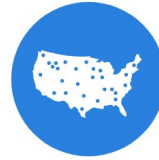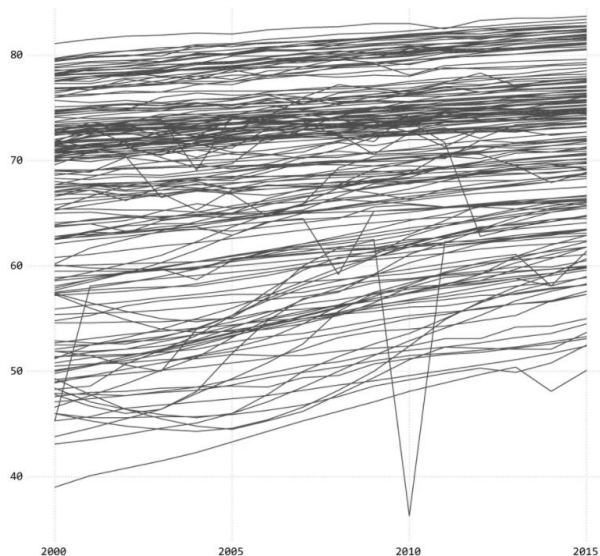| Arc Diagram | Area Graph | Bar Chart | Box & Whisker Plot | Brainstorm | Bubble Chart |
| Bubble Map | Bullet Graph | Calendar | Candlestick Chart | Chord Diagram | Choropleth Map |
| Circle Packing | Connection Map | Density Plot | Donut Chart | Dot Map | Dot Matrix Chart |
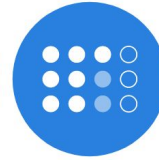
And the list goes on..

Note: From Dataviz Catalogue

Choose wisely the visual form

Bad

Good

Note: chart from One Dataset, Visualized 25 Ways. Copyright belongs to original author

Chart types

Chart Suggestions—A Thought-Starter

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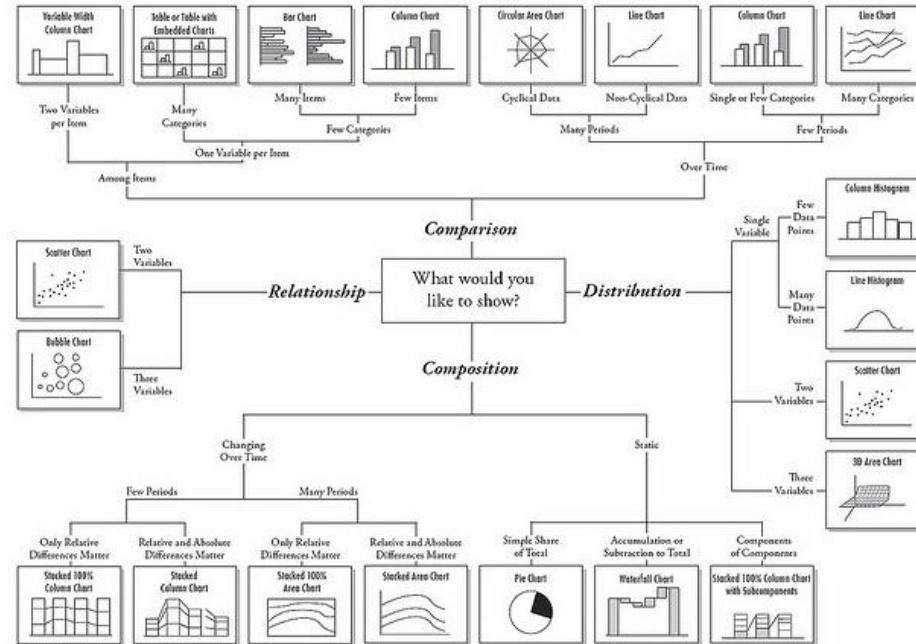
Chart junks
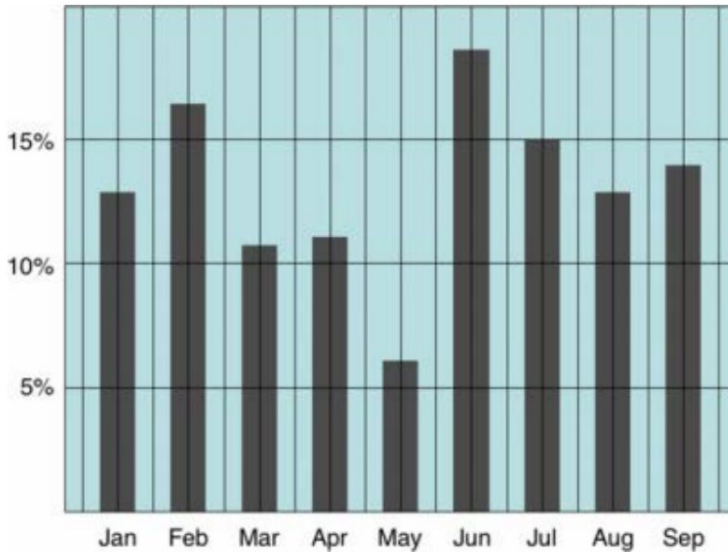
Low Data Ink (BAD)
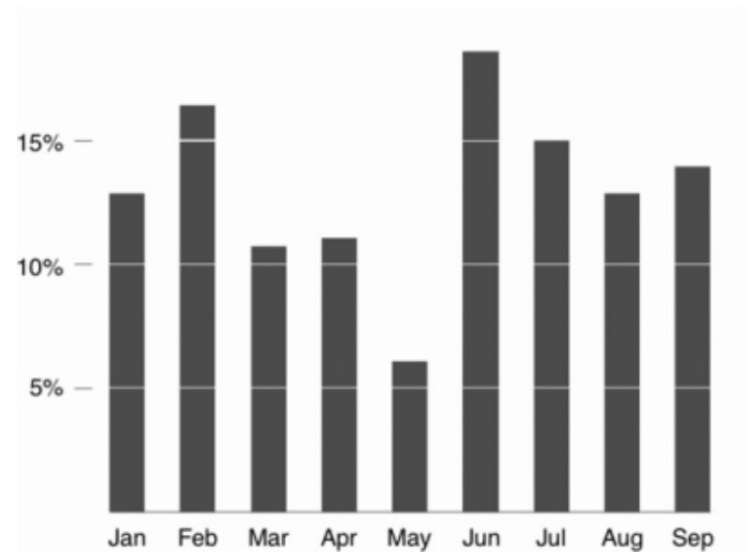
High Data Ink (GOOD)

Storytelling with data

Storytelling with data: personalized
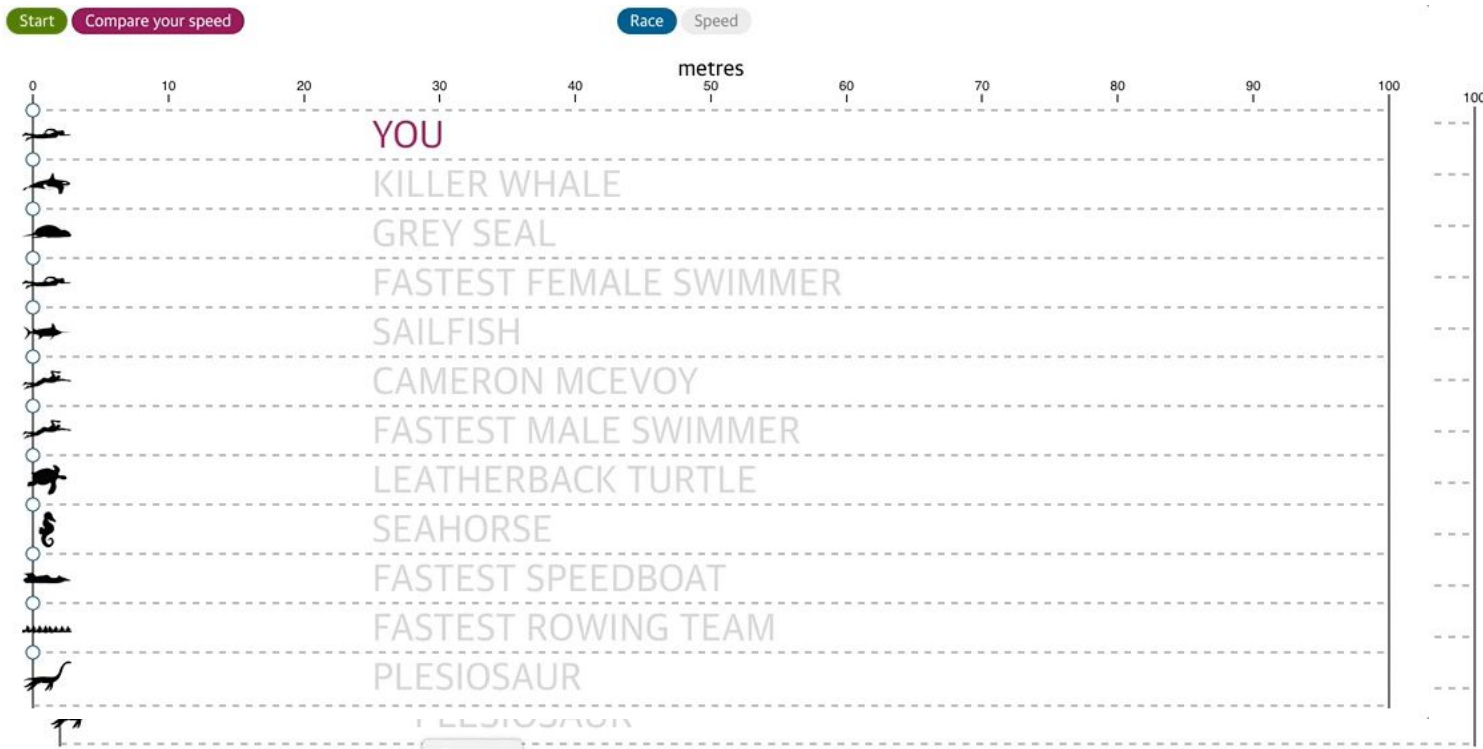
Thank you

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