COURSE SYLLABUS

Data Visualization

Learn how to transform your data into persuasive and informative charts, graphs, and visualizations. This course helps data professionals effectively organize and present their findings to relevant stakeholders.

For more information, visit
https://www.creativelive.com/classes/data-visualization



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Course Outline

Examples of Data Visualization

- The Problem with Data Visualization
- Graphical Perception
- The Science of Human Graphical Perception
- The Elementary Perceptual Tasks
- How Good is Your Graphical Perception?
- 5 Questions to Ask
- The Ranking of the Elementary Perceptual Tasks
- Identify the Elementary Perceptual Tasks

Redesigning Charts

- The Golden Rule of Data Visualization
- Graphical Excellence
- Graphical Distortion
- Graphical Integrity: The Lie Factor
- Exercise: Calculate the Lie Factor
- Labelling & Annotation
- Data Variation vs. Design Variation
- The Problem with Dimensions
- Some Advice Regarding Dimensions

The Data-Ink Ratio

- Data Density
- Proportion & Scale

Statistical Traps: How Not to Fall in Them

- Correlation Doesn't Sell Newspapers

- Selection Bias & Data Attrition
- The Importance of Context
- The Incorrect Normalization of the Data
- The Simpson's Paradox

Plots: Find the Correct Plot for Your Data

- Types of Plots
- Plotting Distributions
- Plotting Relationships Between Variables
- Plotting Rankings
- Comparing Part to Whole
- Plotting Spatial Data: Maps
- When is it Okay to Cut the Y-Axis?
- Shading the Area of a Line Plot
- The Spaghetti Chart
- Error Bars & Dynamite Plots
- How to Choose the Right Colors
- Common Mistakes with Color