

# Data Visualization with R

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Data Science Summer School at Hertie School Berlin  
July 15<sup>th</sup> 2021, 10.00 – 14.15

## Course Content

Data visualization is one of the most powerful tools to explore, understand and communicate patterns in quantitative information. At the same time, good data visualization is a surprisingly difficult task and demands three quite different skills: substantive knowledge, statistical skill, and artistic sense. The course is intended to introduce participants to a) key principles of analytic design, b) useful visualization techniques for the exploration and presentation of various data types and c) new developments of data visualization, such as visual inference. This course is highly applied in nature and emphasizes the practical aspects of data visualization in social data science. Students will learn how to evaluate data visualizations based on principles of analytic design, how to construct compelling visualizations using the free statistics software R, and how to explore and present their data and models with visual methods. In short, students will get hands-on experience producing modern visualizations for their practical social data science problems.

## Format

The course will take place in online format. Participants will receive a ZOOM link in due time.

## Suggested Reading

Few, Stephen (2009). *Now you see it: Simple Visualization Techniques for Quantitative Analysis*. Analytics Press.

Tufte, Edward (2001). *The Visual Display of Quantitative Information*. (Second Edition). Graphics Press.

Murrell, Paul (2011). *R Graphics*. (Second Edition). Chapman & Hall/CRC.

Unwin, Anthony (2015). *Graphical Data Analysis with R*. CRC Press.

## Course Plan

10:00 Principles of Visual Data Analysis

12:00 Short Break

12:15 Visualizing Data using R

14:15 Session Ends