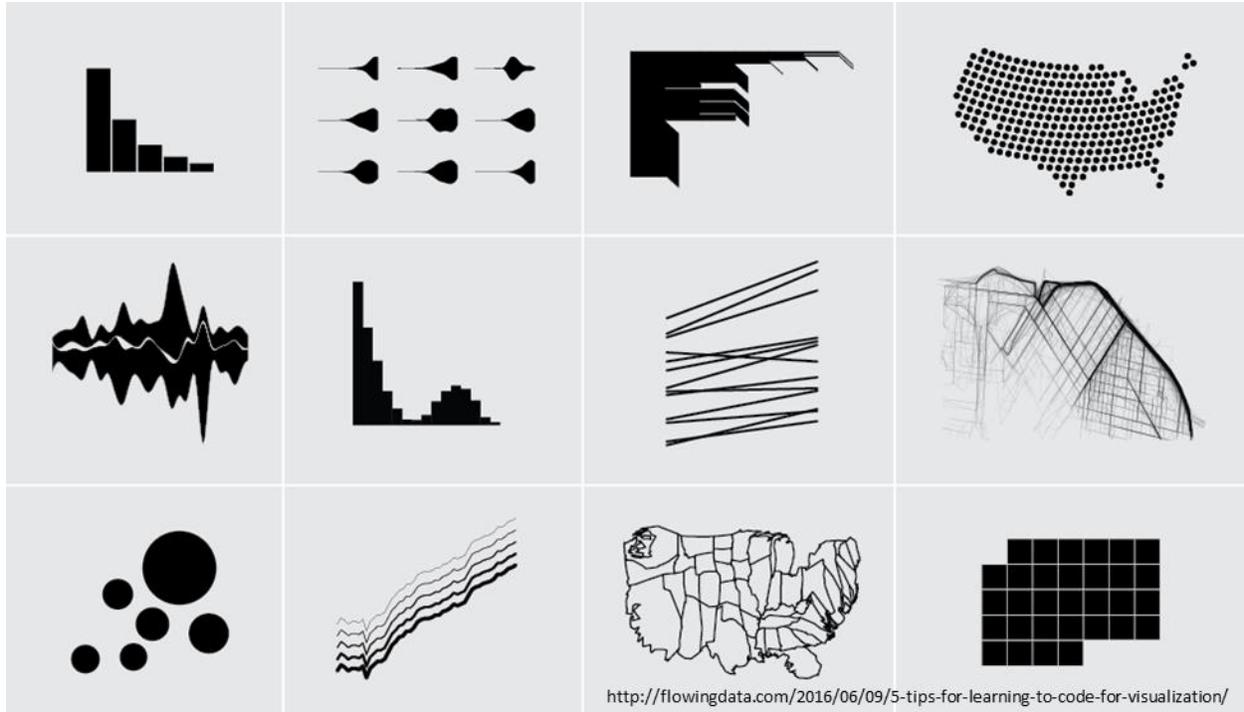


Data Visualization



Instructor: Junhak Lee (junhaki@uoregon.edu), Dept. of Landscape Architecture, Univ. of Oregon
LA 410/510: Fall 2017 - online course (4 units). Office Hours: TBA

This course satisfies Landscape Architecture elective and AOC requirements.

This course will introduce students to data visualization theory and methods. This course is designed for the students new to data visualization (NO prior experience in fields of statistics, design, programming, or data science is required). Students will learn how to transform data into effective visual representations that can be used as exploratory and analytical tools as well as communication means. Students will also learn how to acquire, parse, and analyze various datasets (multivariate, temporal, text-based, geospatial, hierarchical, and network/graph-based data) for transforming datasets into interesting stories. This course will teach students basics of data visualization, data exploration, data collection, and preliminary computer coding. Even though the course will cover specific visualization tools, we will mainly focus on learning how to work with data (not statistical analysis) for storytelling.

Course Objectives

The students will be able to:

- Understand and apply principles of data visualization
- Acquire, parse, and analyze abstract data sets
- Design and implement standard visualization techniques
- Be familiar with data-driven problem-solving approaches

Textbook

- The Functional Art: An introduction to information graphics and visualization by Alberto Cairo (2012)

Tools

- Excel (or opensource spreadsheet programs)
- R (R is a language and environment for statistical computing and graphics)
- Adobe Illustrator (optional)

Course Mechanics

This course is online (via Canvas system) and proceeded asynchronously (i.e. students can access class materials and conduct lab exercises anytime with their own time schedule). However, the class activities and assignments (video lectures, readings, quizzes, and lab exercises) will be released on a weekly basis (with weekly due dates), so that course workloads are evenly distributed throughout the term.

In addition to online assistance, the instructor will be available during office hours to work one-on-one with students wishing in-person assistance.