Day 2: Introduction to Visualizations

matplotlib
Visualization != Sexy Pictures
The Basics

blog.okcupid.com
Bar Graph

Would you consider sleeping with someone on the first date?

- % answering yes -

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Scatter Plot

Per Capita GDP vs. Portion of People Looking for Casual Sex

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Line Graph

people with $X$ or fewer sex partners

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http://blog.ok cupid.com
Choropleth Plots

Who's Gay Curious in the U.S. & Canada

more gay curious

less gay curious

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http://blog.okcupid.com
Box Plots
matplotlib

Python’s version of Matlab plotting
How matplotlib Draws
Figure object
Subplot object

Figure

Draw in here

Subplot

Draw in here
figure.add_subplot(2, 3, 1)
`figure.add_subplot(2, 3, 1)`

2 rows

3 columns
figure.add_subplot(2, 3, 1)

2 rows
3 columns
50 inches
figure.add_subplot(2, 3, 1)

2 rows

3 columns
Charting Library

- subplot.bar()
- subplot.plot()
- subplot.scatter()
- subplot.boxplot()
Lines

Subplot

Figure
Polygons

Figure

Subplot
Overlaps

Figure

Subplot
Overlaps

Figure

Subplot
Choropleth Plots

Who's Gay Curious in the U.S. & Canada

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http://blog.okcupid.com
No Easy Way
How Maps are Drawn
How Maps are Drawn
Helper Functions

FIPS

draw_county(subplot, county_id, color)

draw_state(subplot, state, color)