Explore and Visualize

Prof. Eric A. Suess

August 26, 2019
Let's continue with Explore and Visualize.

This week we will finish reading Chapter 3 and discuss Chapter 4.
Faceting

From the authors.

“... particularly useful for categorical variables, is to split your plot into facets, subplots that each display one subset of the data.”
How to add a smoothing line to a scatterplot?

\[ \text{ggplot}(data = \text{mpg}) + \]
\[ \text{geom\_point}(\text{mapping} = \text{aes}(x = \text{displ}, y = \text{hwy})) \]

\[ \text{ggplot}(data = \text{mpg}) + \]
\[ \text{geom\_smooth}(\text{mapping} = \text{aes}(x = \text{displ}, y = \text{hwy})) \]
library(tidyverse)
ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy))
right plot

```r
ggplot(data = mpg) + geom_smooth(mapping = aes(x = displ, y = hwy))
```

```r
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```
together

ggplot(data = mpg) +
  geom_point(mapping = aes(x = displ, y = hwy)) +
  geom_smooth(mapping = aes(x = displ, y = hwy))

```r
## /grave.ts1 geom_smooth() /grave.ts1 using method = 'loess' and formula 'y ~
```
Multiple smoothing lines

```r
## `geom_smooth()` using method = 'loess' and formula 'y ~ x'
```
Statistical transformations