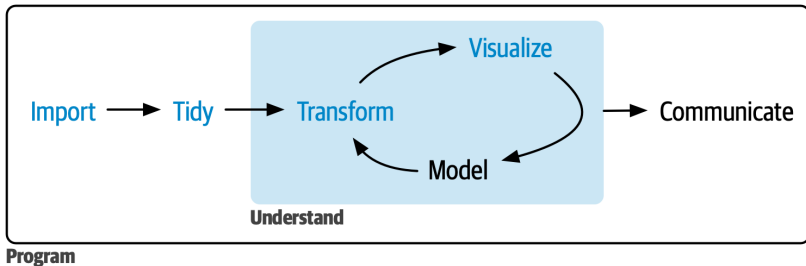# https://intro2r.com/ Chapter 5

CSCI 297b, Spring 2023

April 27, 2023

The Big Picture

"The simple graph has brought more information to the data analyst's mind than any other device." — *John Tukey*

The tidyverse

```
install.packages("tidyverse")
install.packages("palmerpenguins")
install.packages("ggthemes")

library("tidyverse")
library("palmerpenguins")
library("ggthemes")
```

- tidyverse and ggthemes already on RStudio Workbench
- Only have to install once. Not needed in scripts.
- Instead of library(palmerpenguins) can use
  penguins <- palmerpenguins::penguins

penguins

- penguins contains 344 observations collected and made
  available by Dr. Kristen Gorman and the Palmer Station,
  Antarctica LTER

```
> str(penguins)
tibble [344 × 8] (S3: tbl_df/tbl/data.frame)
 $ species          : Factor w/ 3 levels "Adelie","Chinstrap",..: 1 1 1 1 1 1 1
 $ island           : Factor w/ 3 levels "Biscoe","Dream",..: 3 3 3 3 3 3 3 3 3
 $ bill_length_mm   : num [1:344] 39.1 39.5 40.3 NA 36.7 39.3 38.9 39.2 34.1 42
 $ bill_depth_mm    : num [1:344] 18.7 17.4 18 NA 19.3 20.6 17.8 19.6 18.1 20.2
 $ flipper_length_mm: int [1:344] 181 186 195 NA 193 190 181 195 193 190 ...
 $ body_mass_g      : int [1:344] 3750 3800 3250 NA 3450 3650 3625 4675 3475 42
 $ sex              : Factor w/ 2 levels "female","male": 2 1 1 NA 1 2 1 2 NA N
 $ year             : int [1:344] 2007 2007 2007 2007 2007 2007 2007 2007 2007
```

penguins

```
> glimpse(penguins)
Rows: 344
Columns: 8
$ species           <fct> Adelie, Adelie, Adelie, Adelie, Ade...
$ island            <fct> Torgersen, Torgersen, Torgersen, To...
$ bill_length_mm    <dbl> 39.1, 39.5, 40.3, NA, 36.7, 39.3, 3...
$ bill_depth_mm     <dbl> 18.7, 17.4, 18.0, NA, 19.3, 20.6, 1...
$ flipper_length_mm <int> 181, 186, 195, NA, 193, 190, 181, 1...
$ body_mass_g       <int> 3750, 3800, 3250, NA, 3450, 3650, 3...
$ sex               <fct> male, female, female, NA, female, m...
$ year              <int> 2007, 2007, 2007, 2007, 2007, 2007,...
```

Ultimate goal

Body mass and flipper length
Dimensions for Adelie, Chinstrap, and Gentoo Penguins