R Programming

R for Data Science workshop

2019-05-01 (updated: 2019-07-14)

R Programming

Outline

- Overview
- Vectors and lists
- Functions (includes example of LaTeX in R Markdown)
- Iteration with `purrr`

Data science workflow

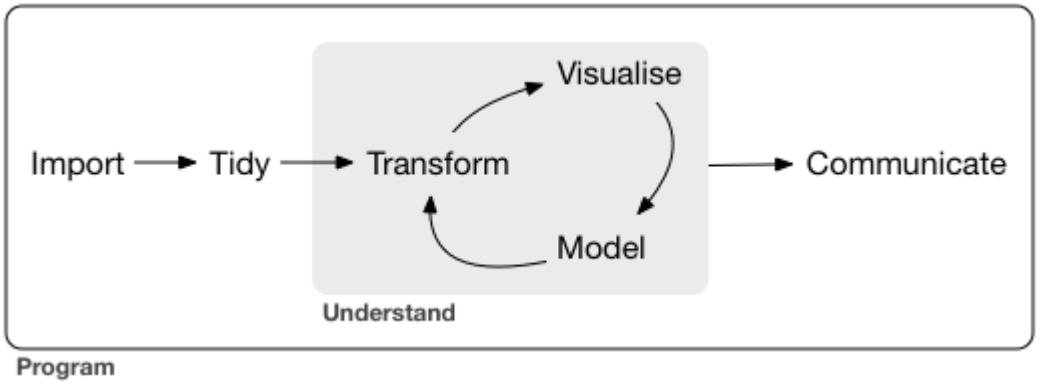

Image source: R for Data Science by Hadley Wickham & Garrett Grolemund.

Data science workflow

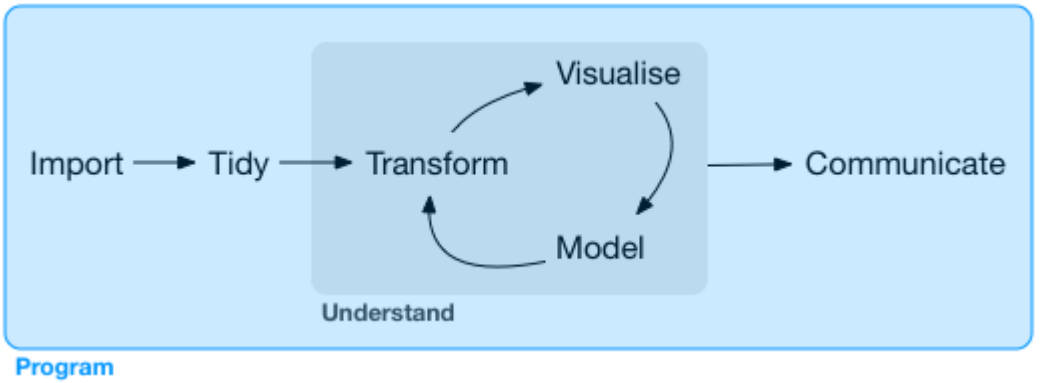

Image source: R for Data Science by Hadley Wickham & Garrett Grolemund.

R Programming

Overview

- You can't do data science without a computer
- Programming produces code
- Code is a tool of communication
    - Code tells a computer what to do
    - Code communicates meaning to other humans
- Getting better at programming means getting better at communicating

Vectors and lists

- Atomic vectors (logical, numeric, character)
- Lists
- Using vectors and lists
- Attributes
- Augmented vectors (factors, dates, datetimes, tibbles)

Demos

Functions

- When should you write a function?
- Functions are for humans and computers

Not covered today

- Conditional execution
- Function arguments and return values
- much more

Demos

Iteration with `purrr`

- For loops
- For loops versus functionals
- The map functions

Demos

Your turn

R Programming

your-turn/04-r-programming.Rmd

15:00