Thanks a lot for participating!

Artwork by Allison Horst

Bring your own data

Day 4 - Introduction to Data Analysis with R

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Organization

Schedule of today

- **Now - 14.30**: Work on the data set(s)
  - Take break(s) as best fits your needs
- **14.30 - 15**: Short feedback round
  - What did you find out about your data set? Plots, summaries, …
  - Which methods did you use?
  - Did you learn something new?
  - Was there something you struggled with?
  - …
- **15-16**: Feedback, conclusion

Data set 1: What makes a good wine?

see here

Frederik Vandaele - originally posted to Flickr as Château Pétrus, CC BY 2.0, https://commons.wikimedia.org/w/index.php?curid=5145286

Data set 2: Paralympic games from 1980-2016

see here

Data set 4: Ice cover and temperature

see here

Image by LTER under CC BY-SA 4.0

Source ice data: Magnuson, J.J., S.R. Carpenter, and E.H. Stanley. 2021. North Temperate Lakes LTER: Ice Duration - Madison Lakes Area 1853 - current ver 35. Environmental Data Initiative.

Data set 5: RNAseq data

see here

Download example script

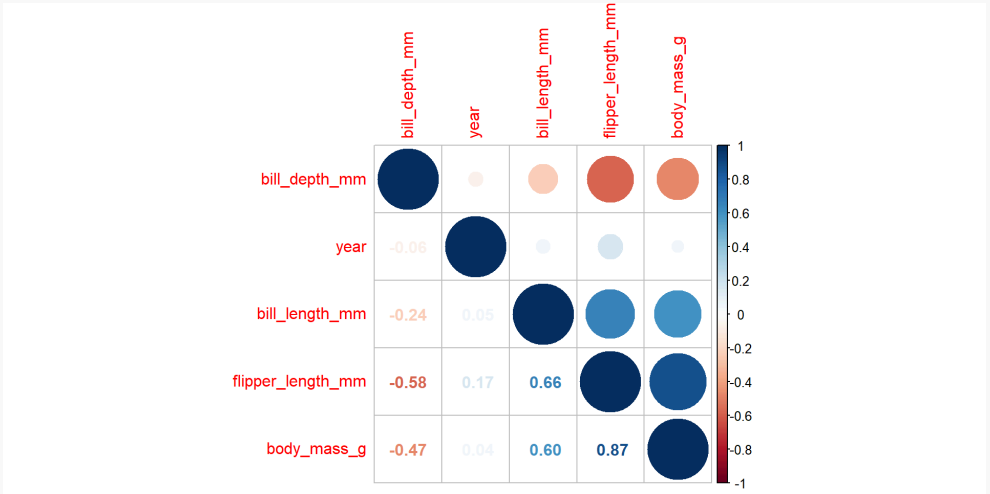
New methods: Read multiple files at once

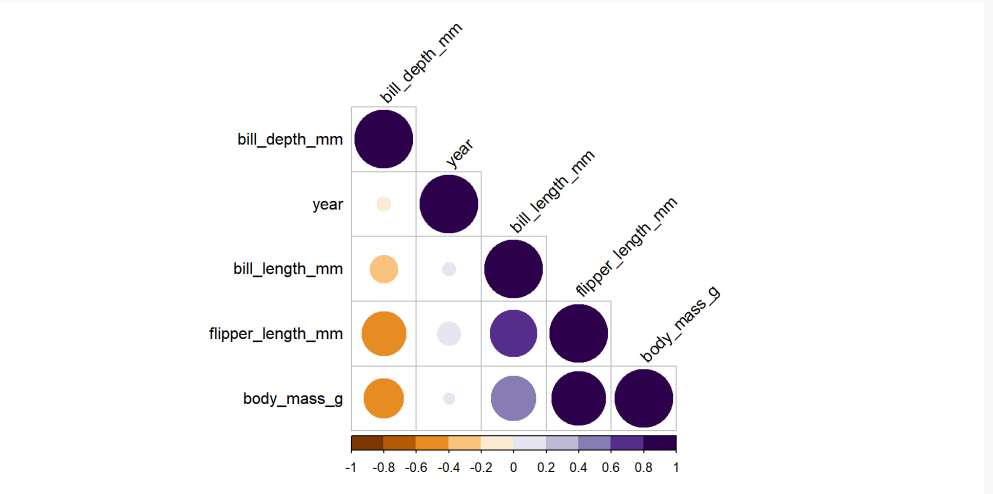
- If you have multiple files with data you can
  - Read them all in at the same time
  - Combine them into one tibble

Download example script

New methods: Correlation plots

Download example script





New methods: PCAS

Download example script

Some general tips

- First make a plan:
  - What do you want to achieve and what are the steps?
  - Start with something small, e.g. reading in the data and bringing it into the right format.
  - If you want, stop by in general to discuss your plan or write me in the chat
- Google, ask AI tools if you want, look at the function help (`?`)
  - Hint: Set your RStudio error messages to English: `Sys.setenv(LANGUAGE='en')` in the console
- If you get stuck, ask in the chat or stop by in General

Now you

Working with real data

- **Meet** in your group (if you want)
- **Work** on your data set
- **Take breaks** as you need and **be back at 2.30 p.m.**

Sharing

In **1-2 mins**:

- What was the highlight of your analysis?
  - Your favorite plot
  - Some cool code
  - A problem that you finally solved
  - Something new you learned
- What was difficult?
- If you want: Share a screenshot in the chat or share your screen

Feedback

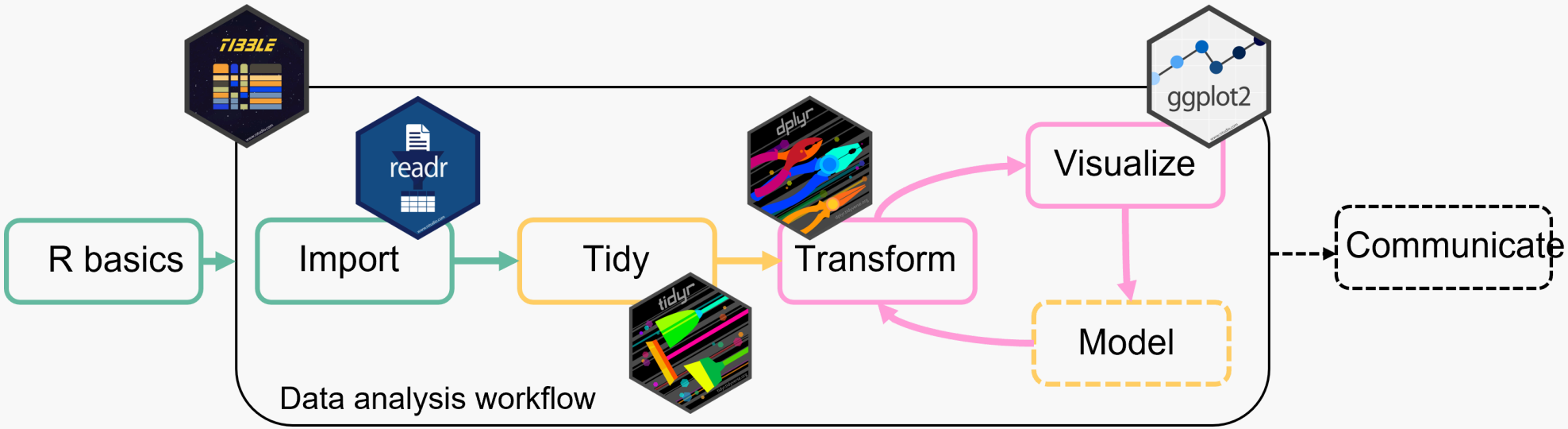
Please take 10 mins to complete the feedback survey for the Graduate center (don't use Internet Explorer)

https://votingo.cedis.fu-berlin.de/PCNLP3

Feedback

- Any other feedback or comments from your side?

Conclusion

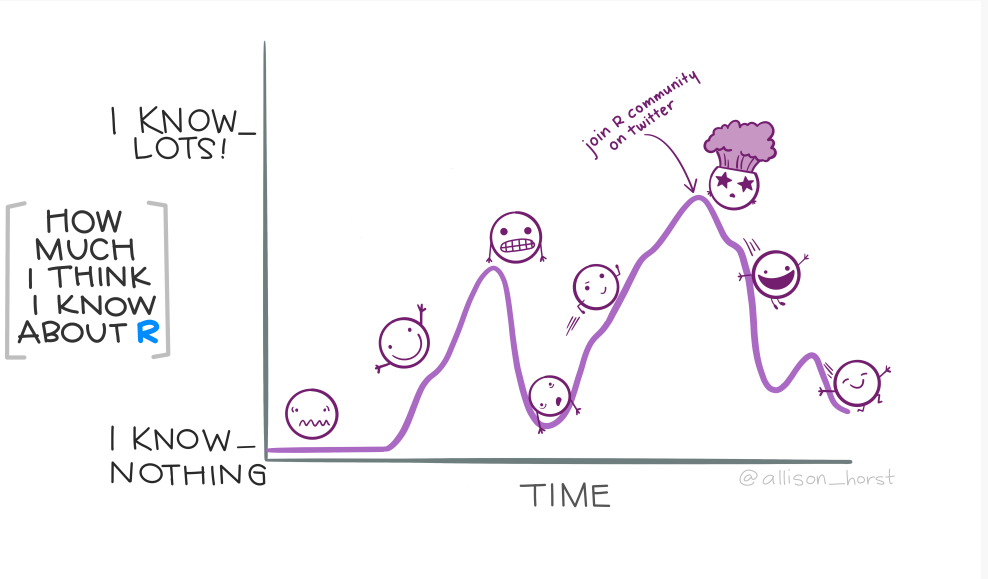


We learned a lot of stuff!

Conclusion

How to continue from here?

- Learning by doing!
- Have a look at some online ressoures
- FU statistical consulting for questions regarding statistical methods
- R Consulting by me
- Tools and Tips lecture



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The End