

Bring your own data

Day 4 - Introduction to Data Analysis with R

Selina Baldauf

Freie Universität Berlin - Theoretical Ecology

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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 3: 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 4: RNAseq data

see [here](#)

 Download example script

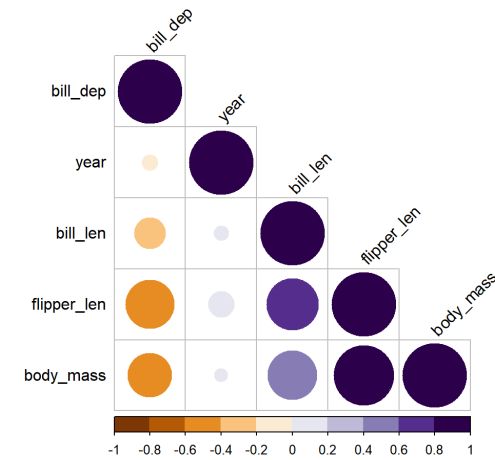
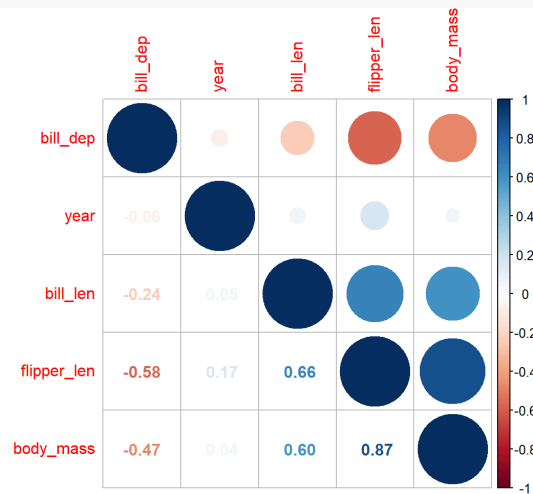
New methods: Read multiple files at once

- 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: PCA

[Download example script](#)



How it works

- Start working on your data set or select one of mine
- You can also do other things like
 - Look at the example scripts to learn new techniques
 - Try AI tools, Quarto, Positron, ...
- If you are stuck
 - Ask Google or AI tools
 - Aks me: Meeting or write me on Webex

Now you

Working with real data

- Work on your data set
- Take breaks as you need and **be back at 2.30 p.m.**

Sharing

In 1-2 mins:

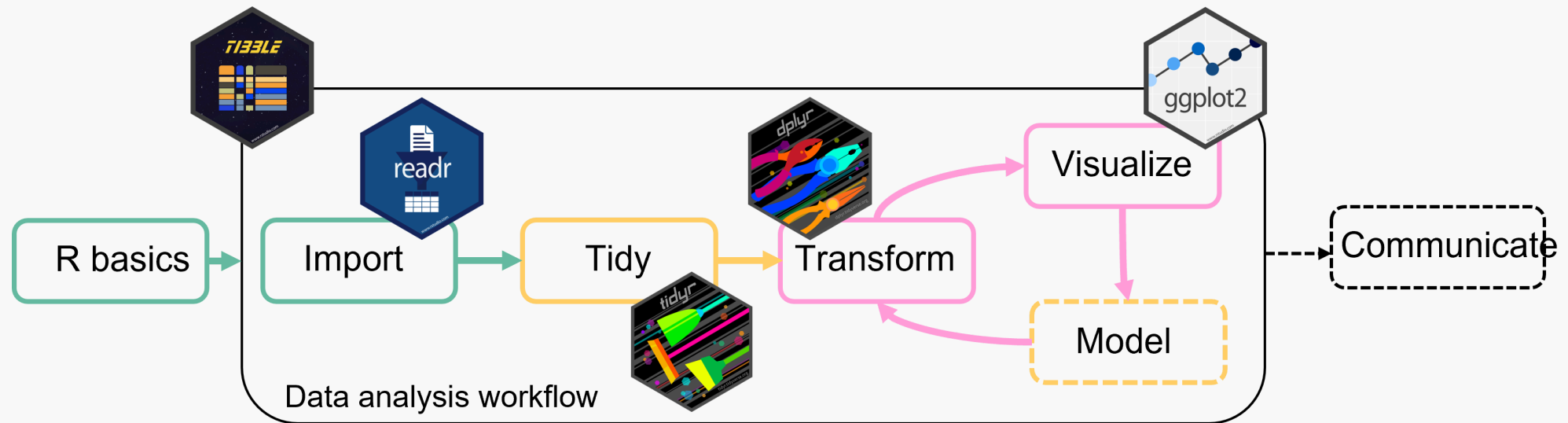
- What was the highlight of your analysis?
 - Your favorite plot
 - Some cool code
 - A problem that you finally solved
 - Something new you learned
- What was difficult?
- If you want: Share a screenshot in the chat or share your screen

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>

Conclusion

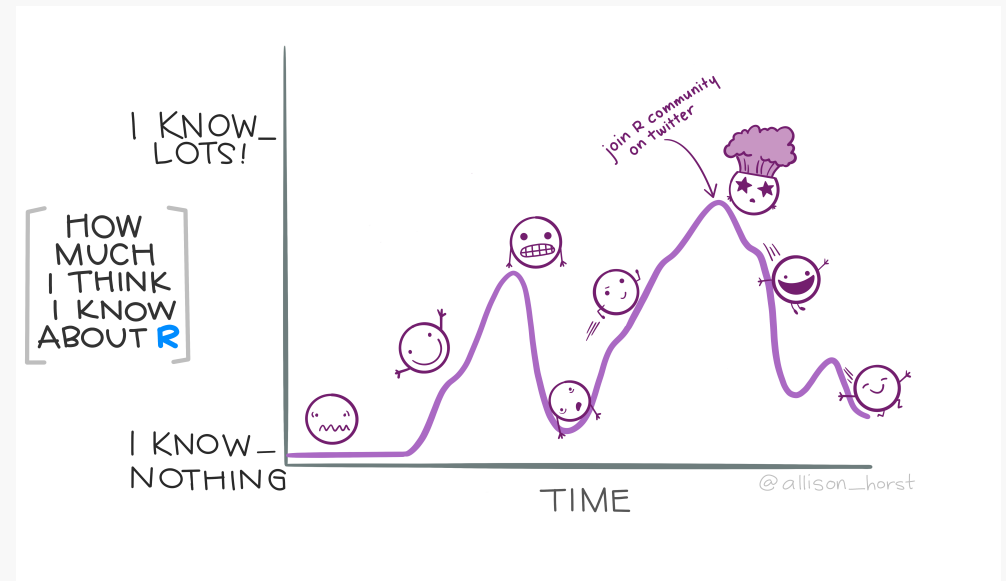


We learned a lot of stuff!

Conclusion

How to continue from here?

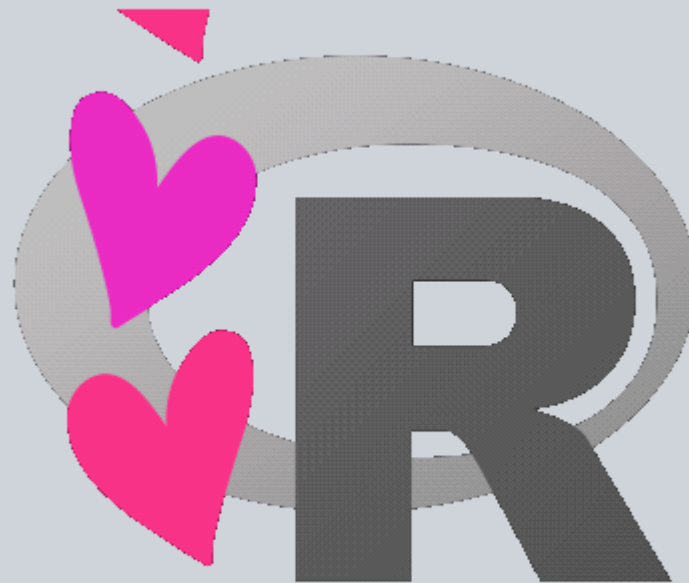
- Learning by doing!
- Have a look at some [online resources](#)
- [FU statistical consulting](#) for questions regarding statistical methods
- [R Consulting by me](#)
- [Tools and Tips lecture](#)



Artwork by [Allison Horst](#)

The End

Thanks a lot for participating!



Artwork by [Allison Horst](#)