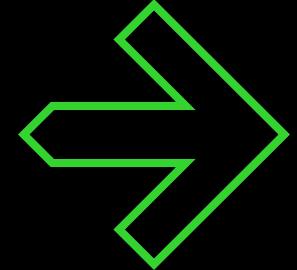


INTRODUCTION TO R AND R Studio®

Ezgi Karaesmen
April 2019 Pelotonia Fundraiser
@ Columbus Collaboratory

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Hello!



I am Ezgi! (Ez-ghee)

I am a PhD student at OSU, my research interests are Statistical Genetics and Pharmacogenomics.

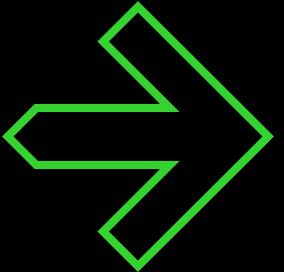
And I am a Pelotonia Fellow!

Email: Ezgi.Karaesmen@osumc.edu

Twitter: [@e_Karaesmen](https://twitter.com/e_Karaesmen)

LinkedIn: www.linkedin.com/in/ezgi-karaesmen

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Who are the R-Ladies?



R-Ladies is a worldwide organization to promote gender diversity in the R community.



Our mission: To achieve proportionate representation by encouraging, inspiring, and empowering the minorities currently underrepresented in the R community.

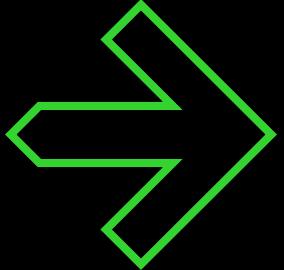


As such, leadership and mentoring roles are reserved for women (*including trans women, genderqueer women, and non-binary people who are significantly female-identified*), and men are welcome to attend meetings as guests.

R-Ladies Columbus chapter

- R-Ladies Columbus is the Columbus chapter of R-Ladies.
- Current Co-Organizers:
Ezgi (me)
Katie Sasso (Data Scientist at Columbus Collaboratory)
- Become a member : meetup.com/RLadies-Columbus/
- Follow us on Twitter: [@RLadiesColumbus](https://twitter.com/RLadiesColumbus)





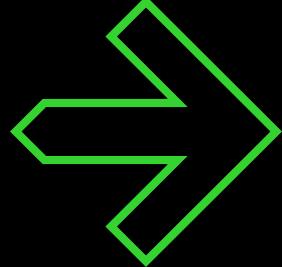
R and RStudio

Bonnie and Clyde of Statistical Programming

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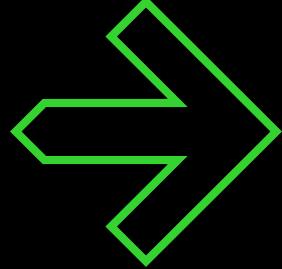
A Computer Programming Language



- Free and open source programming language for statistical computing and graphics
- Descends from S programming language
- Created by Ross Ihaka and Robert Gentleman at the University of Auckland, New Zealand
- Does not need RStudio



Studio[®]: A Software Program

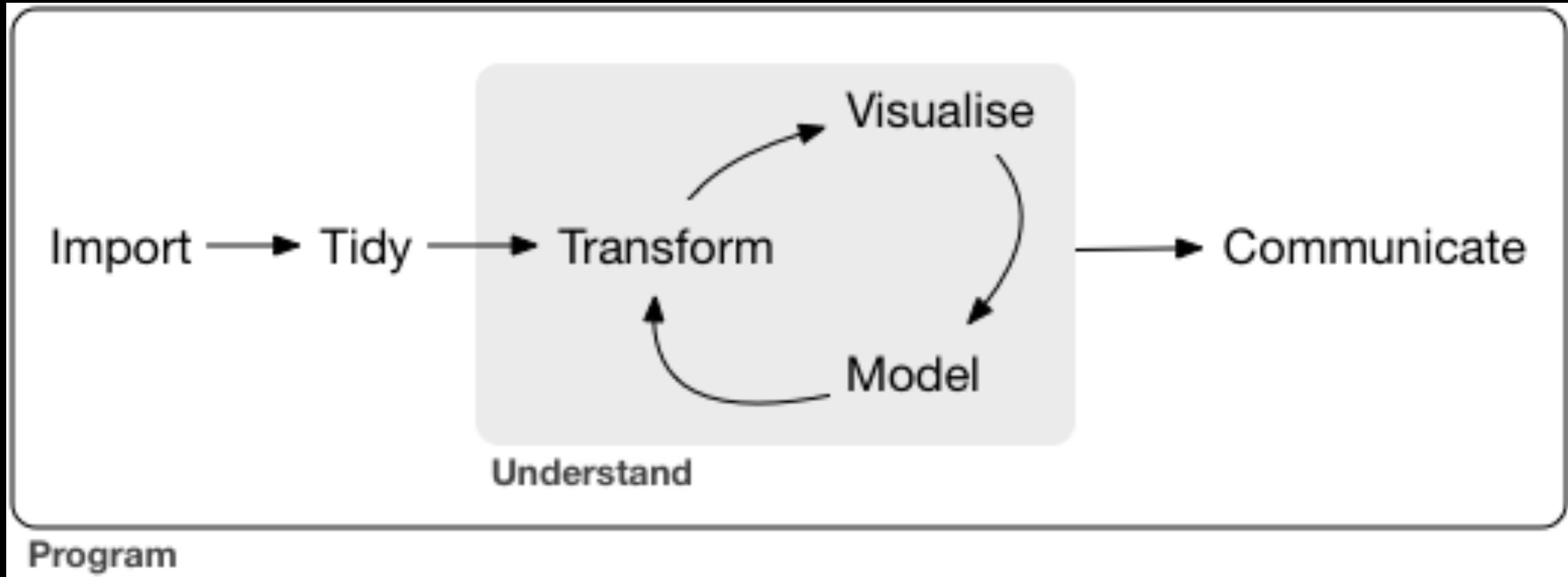
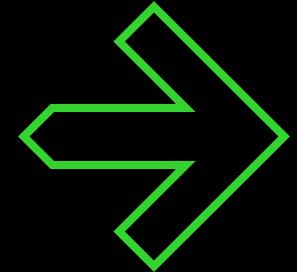


- If R is a pretty painting, Rstudio is the frame that enhances R's beauty.
- A free and open-source integrated development environment (IDE) for R
- Built to help you write R code, run R code, and analyze data with R
- Text editor, version control, latex integration, keyboard shortcuts, debugging tools, and much more



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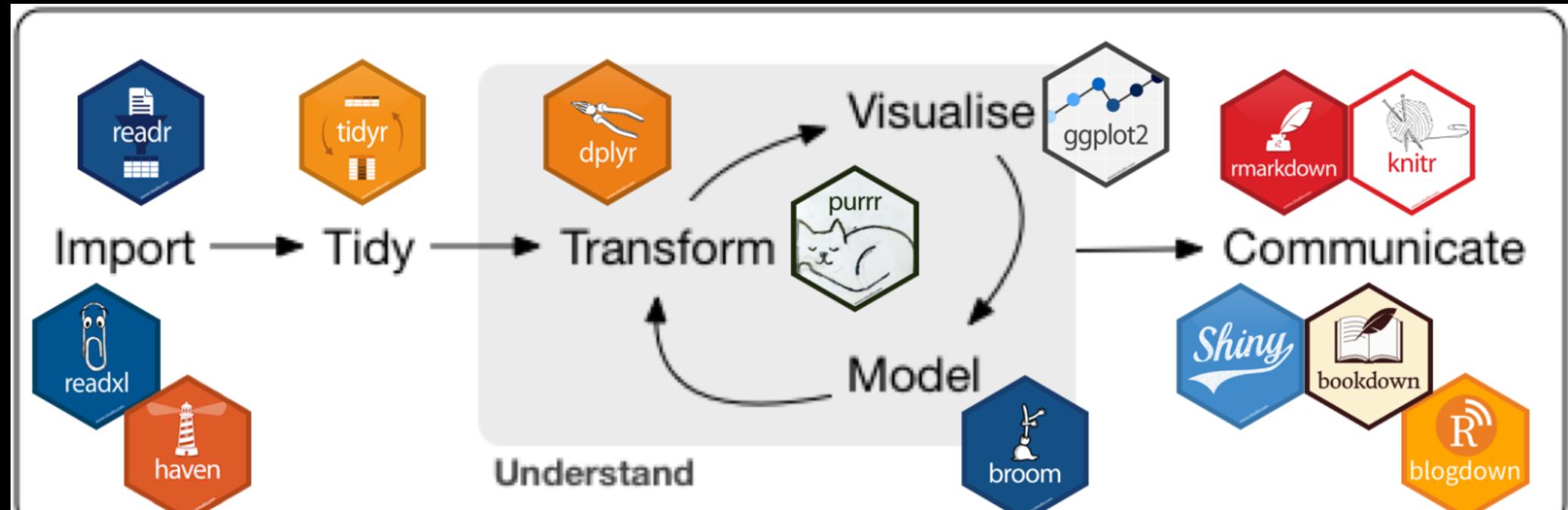
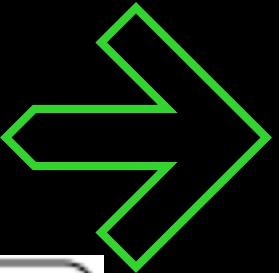
A Data Science Workflow



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R for Data Science - Garrett Grolemund & Hadley Wickham

Why R is so awesome?



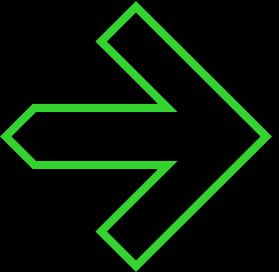
data.frames factors strings dates



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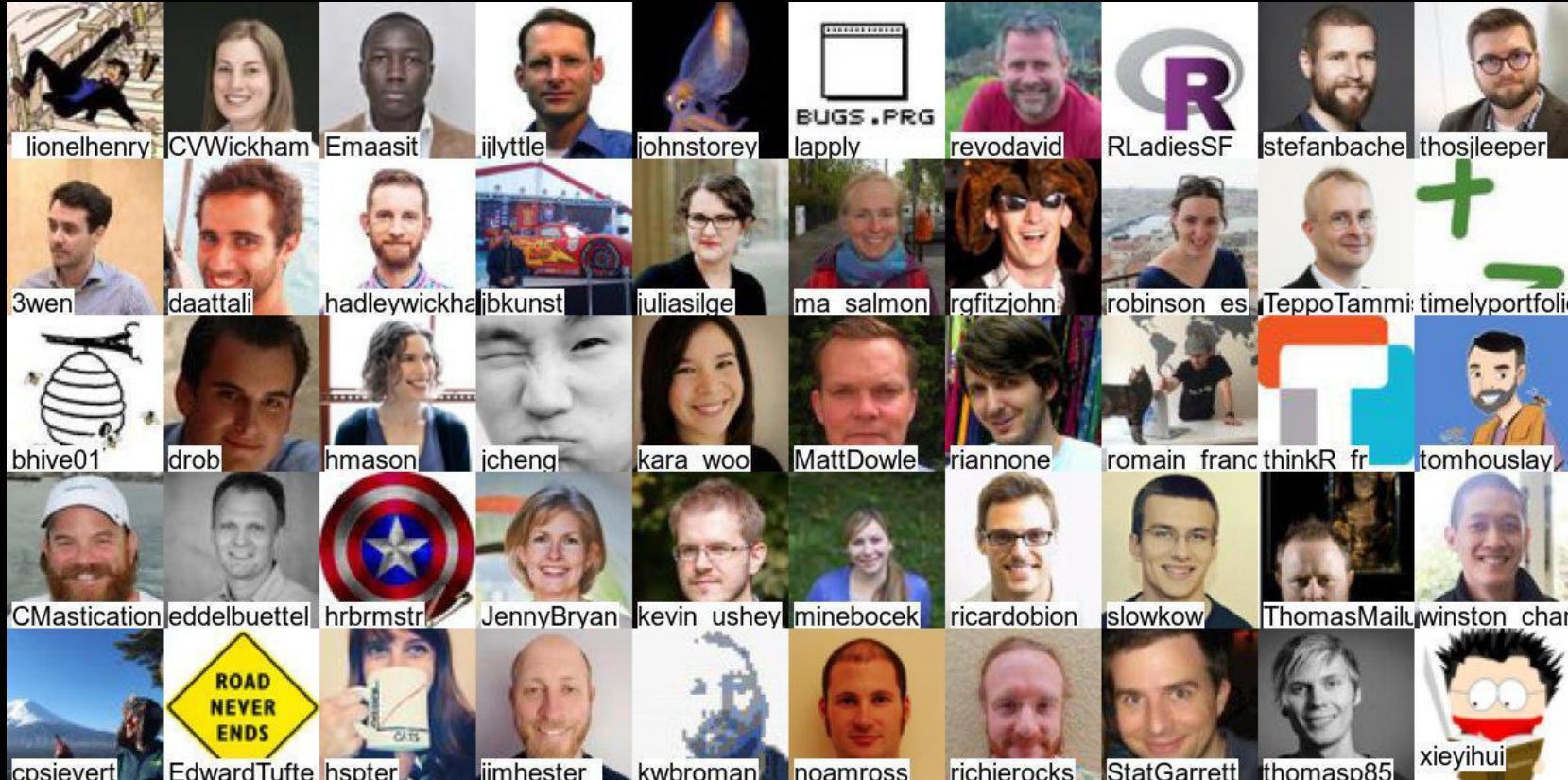


Why R is so awesome?



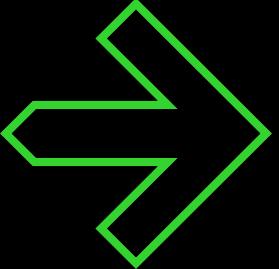
R community is the best!

#rstats and #rladies on Twitter



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There are so many things one can do with
R and RStudio



Data Visualization

<http://www.r-graph-gallery.com/portfolio/ggplot2-package/>

Interactive Apps with Shiny

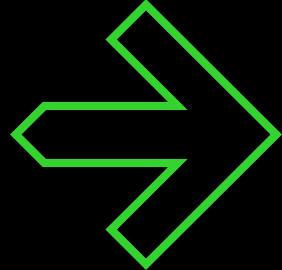
<https://shiny.rstudio.com/gallery/>

Reports and Books

<https://rmarkdown.rstudio.com/gallery.html>

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Some very useful links



R for Data Science Book – The Book! : <https://r4ds.had.co.nz/>

Introduction to Data Science Book: <https://leanpub.com/datasciencebook>

RStartHere: <https://github.com/rstudio/RStartHere>

#rstats on Twitter

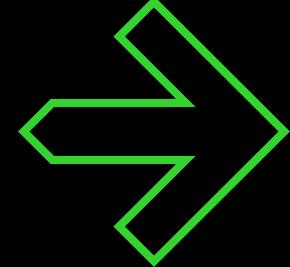
[DataCamp](https://www.datacamp.com/) <https://www.datacamp.com/> ! ☠

Learn more about what's going on with DataCamp read:

<https://juliasilge.com/blog/datacamp-misconduct/>

<https://medium.com/@heathernolis/on-datacamp-aaf82f94e60>

Don't forget!



- This is like learning new language – it's not so fun at the beginning but once you become good at it, it's really useful (and fun, even sexy).
- Prompting errors messages is the way R communicates with you. Although this may be frustrating, trying to understand what R is telling you is the only way to establish a healthy and happy relationship. ❤
- Google is like a the couples therapist for you and R – never underestimate the power of Google 🔎

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TOGETHER UNSTOPPABLE

