Resources for Future Learning

After this workshop you will have a foundation for building future knowledge and skills in R and data analysis. However, we have barely scratched the surface in terms of what R is, what R can do, and more generally how to code or do data analysis. Below are our favorite resources for learning R.

The most comprehensive inventory of R related resources and educational material can be found on <u>RStudio's website</u>. Check out the huge inventory of guidelines, workshop material, videos, and other useful content.

RStudio Cheatsheets

Very well-designed (if somewhat dense) two-page overview cards for specific R packages or topics. We recommend:

<u>Data Import Cheatsheet</u>: https://github.com/rstudio/cheatsheets/raw/master/data-import.pdf

<u>Data Visualization Cheatsheet</u>: https://github.com/rstudio/cheatsheets/raw/master/data-visualization-2.1.pdf

Data Transformation Cheatsheet:

https://github.com/rstudio/cheatsheets/raw/master/data-transformation.pdf

<u>R Markdown Cheatsheet: https://github.com/rstudio/cheatsheets/raw/master/rmarkdown-2.0.pdf</u>

Massive Open Online Courses (MOOCs)/online courses

The Johns Hopkins University Data Science Specialization

 An excellent series of lessons teaching the A to Z of data science from some of the earliest and best team of R educators.

<u>Harvard Data Science Specialization</u>

 A fantastic data science course with a leading biostatistician and data scientist.

stat545

• Data wrangling, exploration, and analysis with R, one of best courses teaching data munging and all things R, initially taught by statistician Jenny Bryan at UBC.

Online/Free Textbooks

R for Data Science by Hadley Wickham and Garrett Grolemund

• The definitive text on data science via the tidyverse by the leading R developer Hadley Wickham.

Introduction to Data Science by Rafael Irizarry

• Raf Irizarry, Harvard Professor and fantastic teacher has published a wonderful introductory Data Science Book.

An Introduction to Statistical and Data Sciences via R byChester Ismay and Albert Y. Kim

• A fantastic introduction to R via statistical inference.

Fundamentals of Data Visualization by Clause Wilke

• Claus Wilke, a professor from UT Austin has written a highly useful ggplot <u>add-on package</u> and now has a new book on data visualization.

Youtube videos

Anything with Hadley Wickham, including:

- Hadley Wickham's "dplyr" tutorial at useR 2014
- Stanford Seminar Expressing yourself in R

As well as Garrett Grolemund's Data Wrangling Series

Websites/Blogs

 $\underline{\textbf{R Bloggers}}$ is a blog aggregator which captures a lot of the most prominent R bloggers on the internet

<u>Rweekly.org</u> is a weekly manual review of the latest and greatest in R internet content.

Rviews is the RStudio blog devoted to the R Community and the R Language.