# Data Science Concept Maps

a remixable collection of teaching resources



#### How To

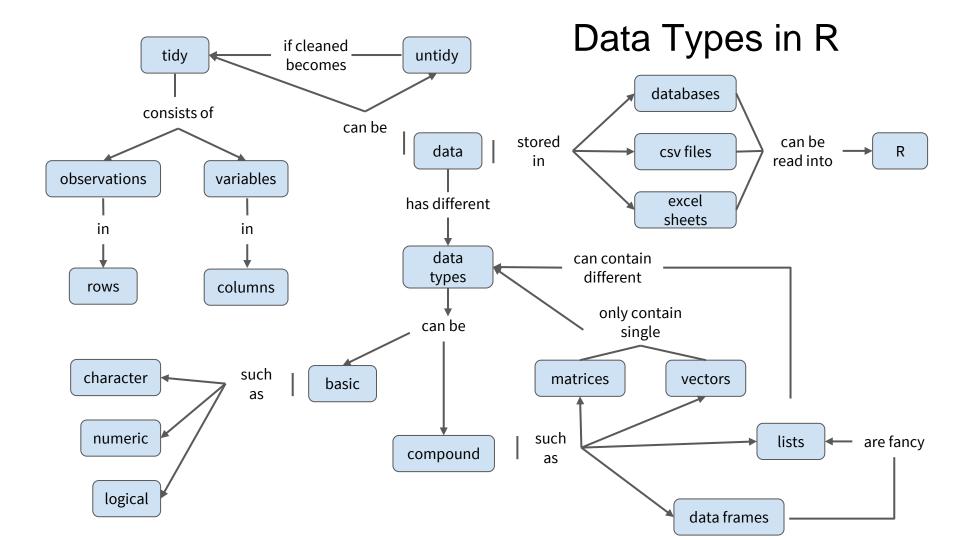
- Mail Greg Wilson (<u>greg.wilson@rstudio.com</u>) for write permission
- Add a slide with the topic as a title
- Use Google Slides' drawing tools rather than pasting in an image
- Put your name and contact information in the speaker notes along with any other information or explanation you want.
- If you are redrawing or modifying a concept map someone else has created, please add yourself in the speaker notes as well.

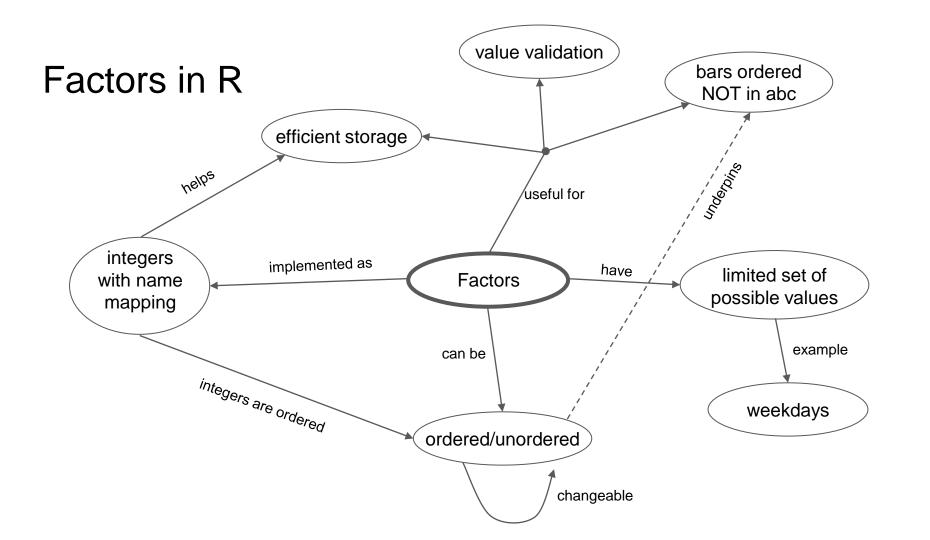
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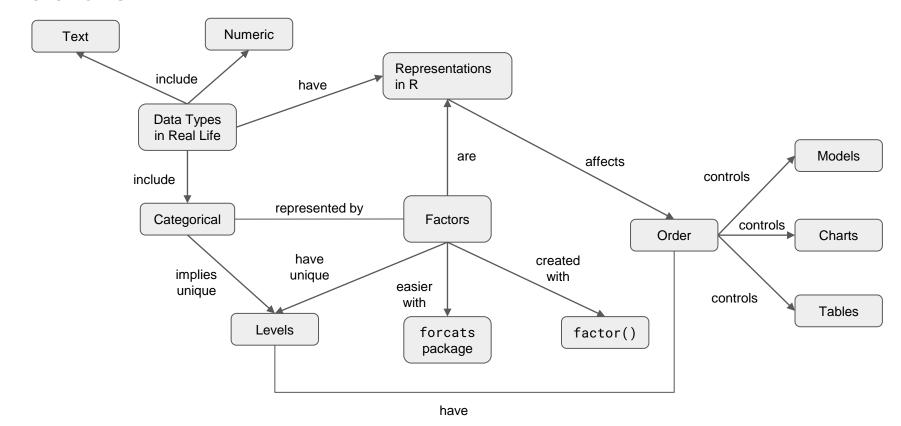
and to abide by the

<u>Contributor Covenant Version 2.0</u>

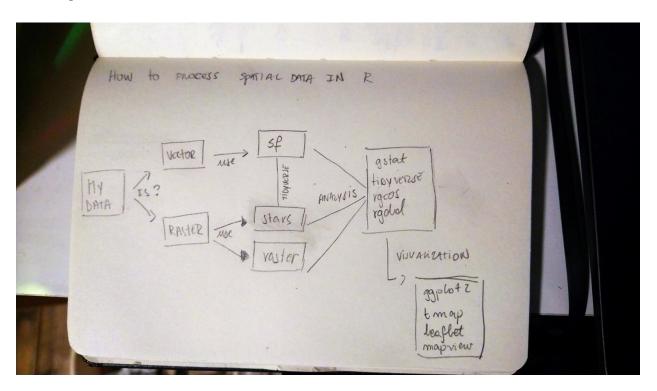




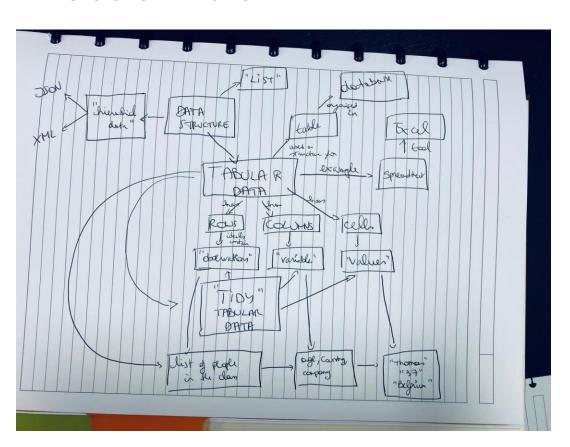
#### Factors in R



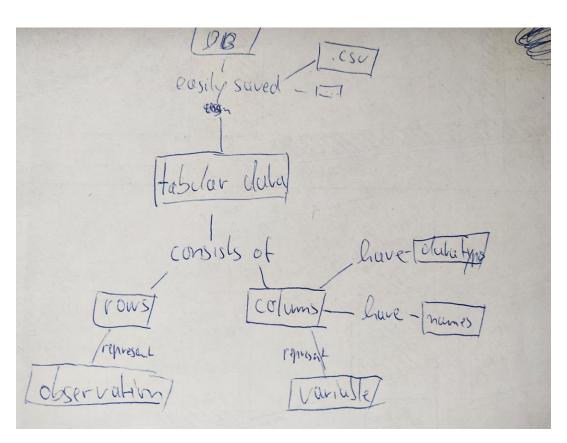
# Spatial Data in R



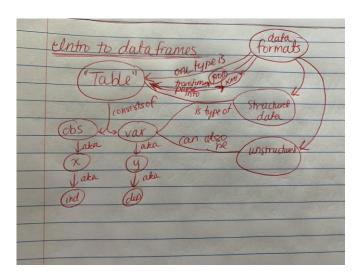
#### **Tabular Data**



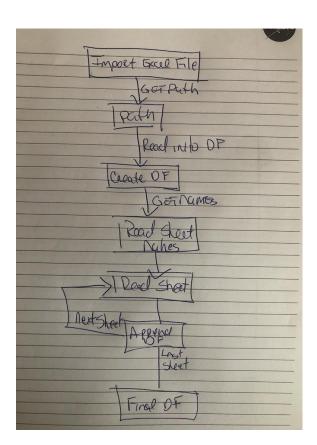
#### **Tabular Data**



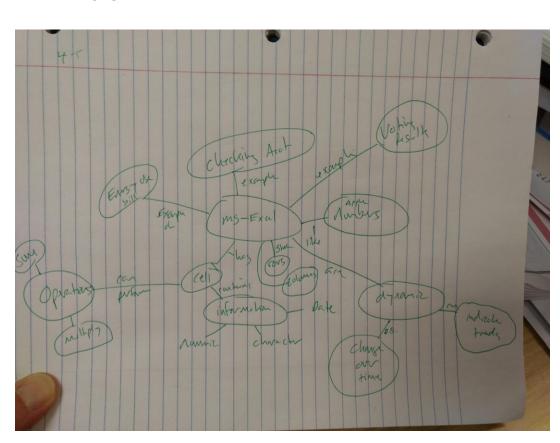
#### **Data Frames**

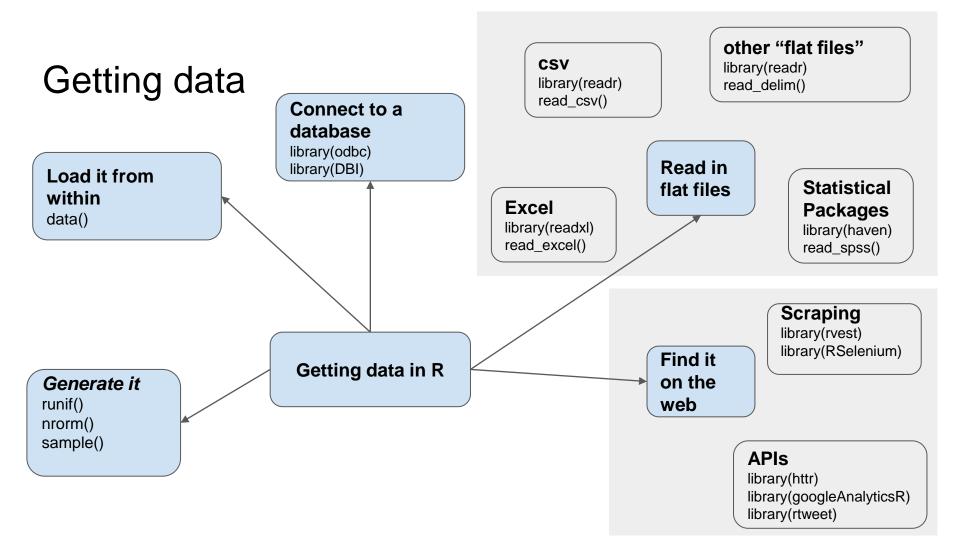


#### From Excel to a Data Frame

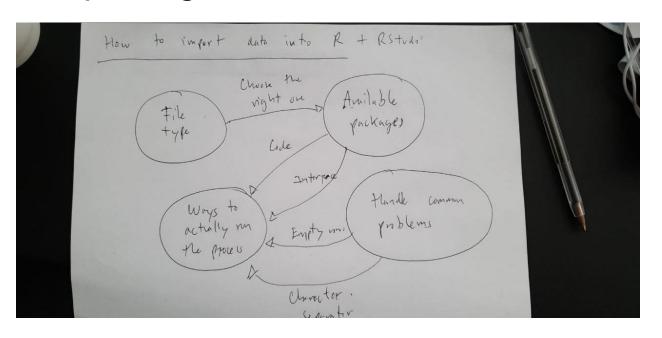


#### **Excel**

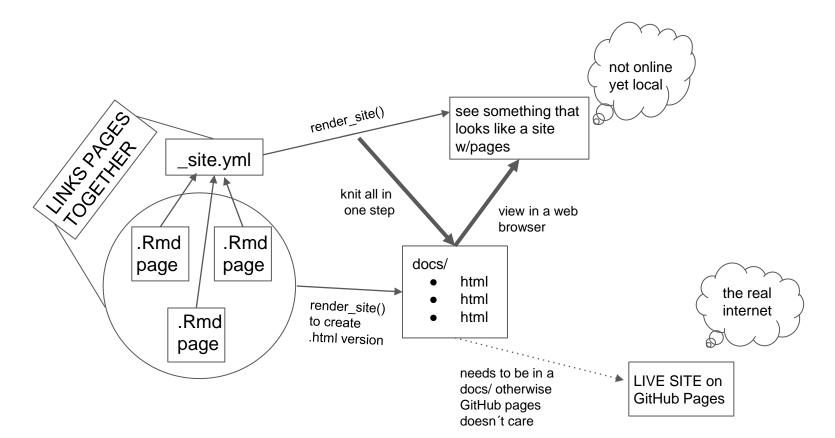




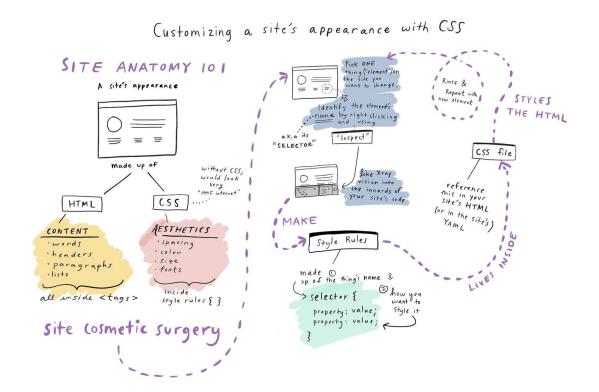
## **Importing Data**



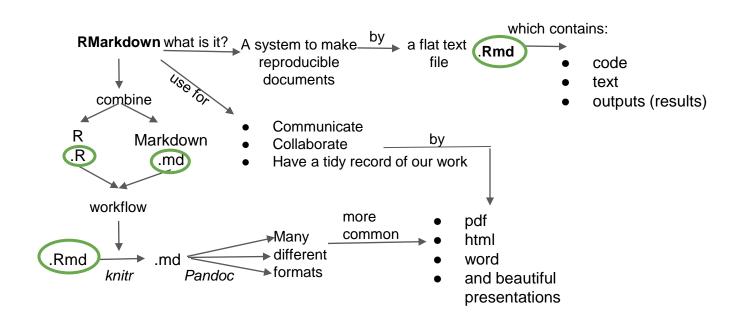
#### R Markdown Websites

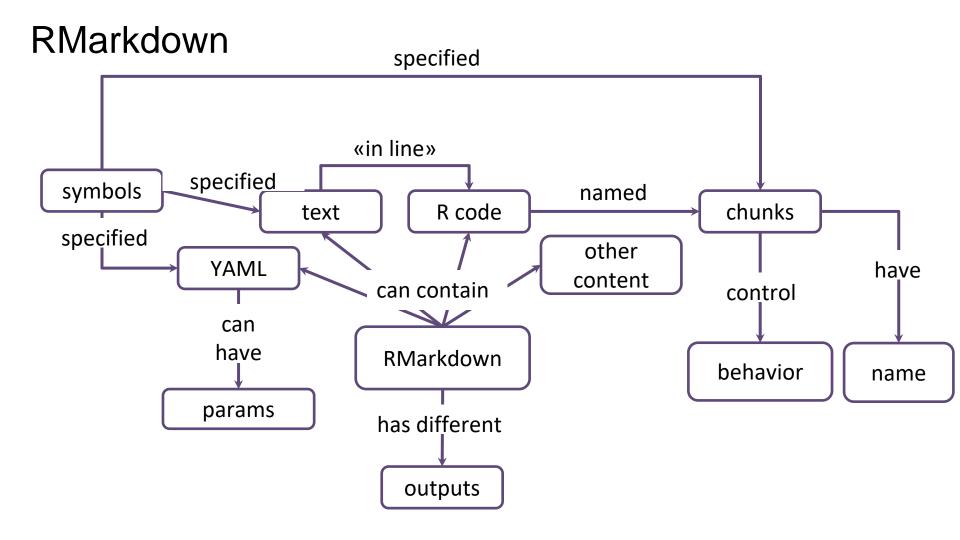


## Customizing a Site's Appearance with CSS

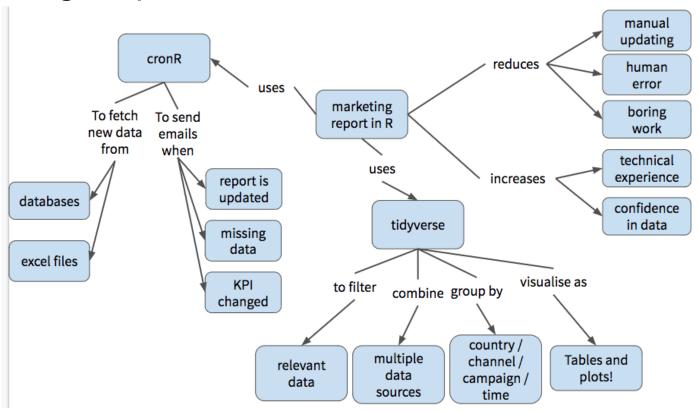


#### R Markdown

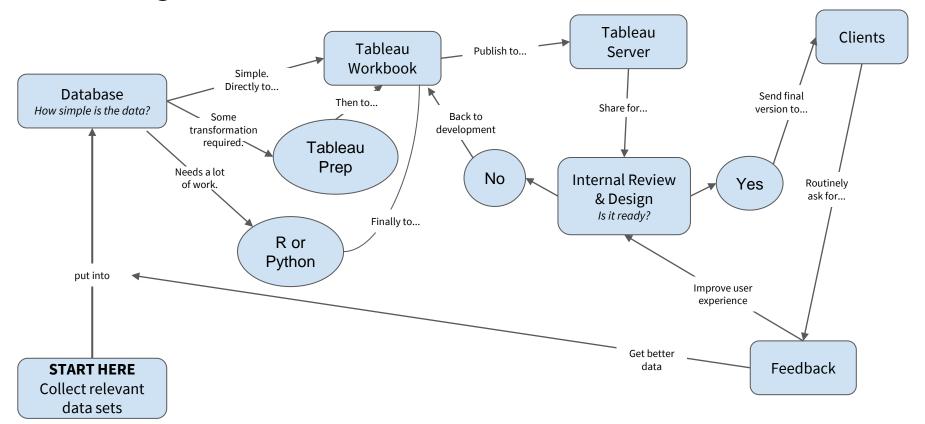




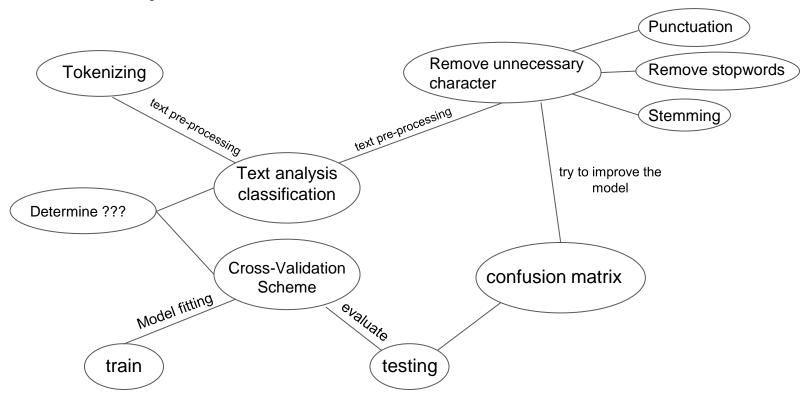
## Marketing Reports with R



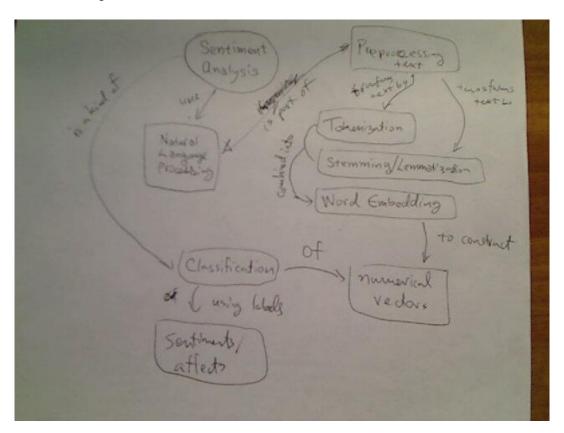
#### Creating a Tableau Dashboard Product



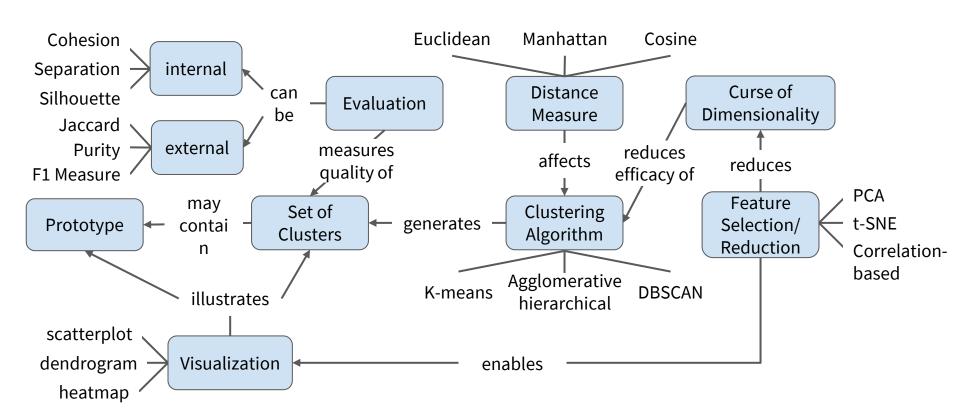
## **Text Analysis**



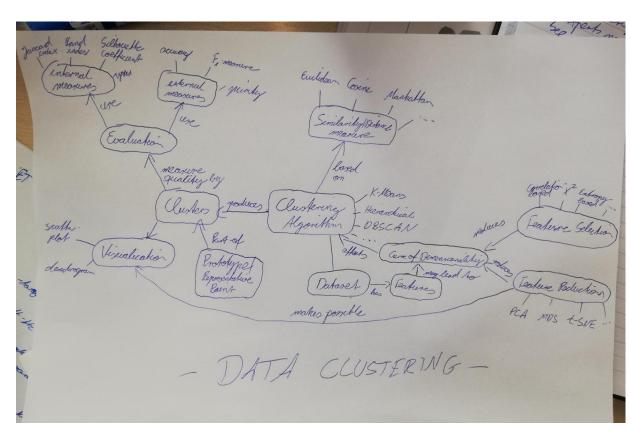
## Sentiment Analysis



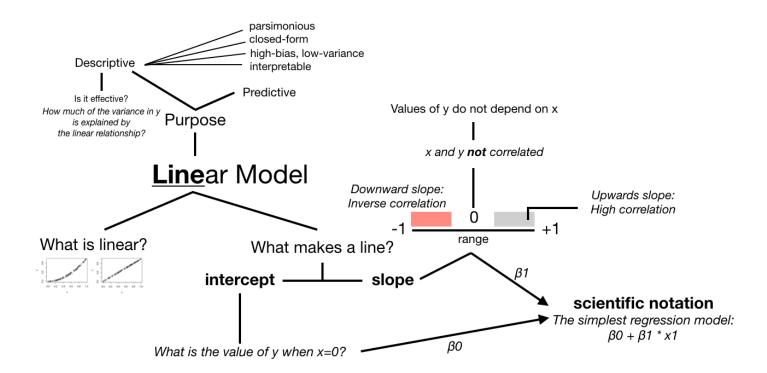
## Data Clustering



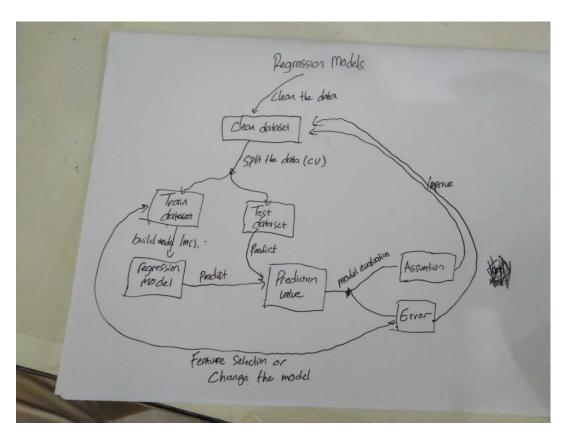
## **Data Clustering**



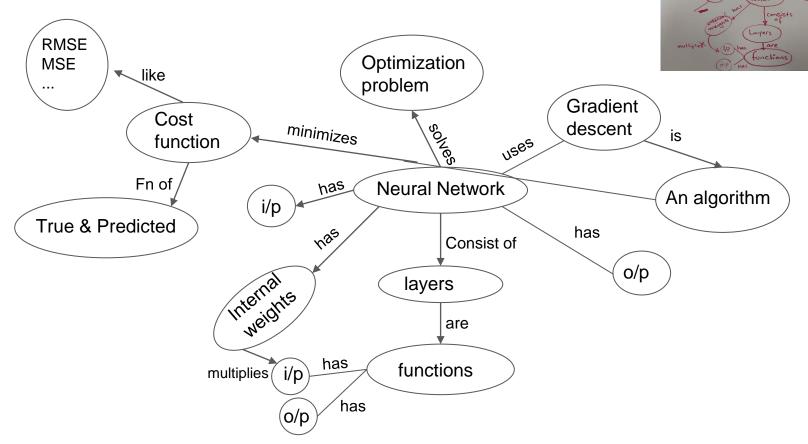
#### **Linear Models**



## Regression Models



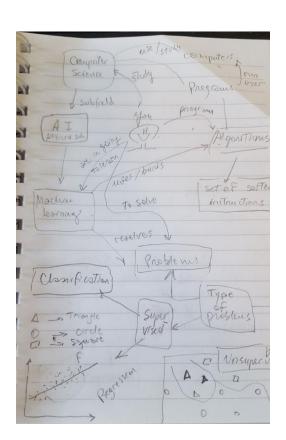
#### **Neural Networks**



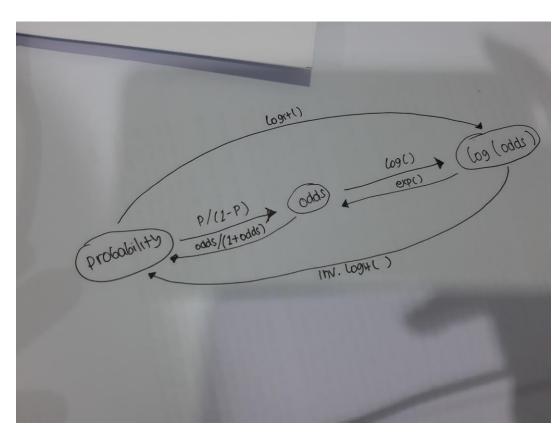
EHSE IN TIKE

True & predicted

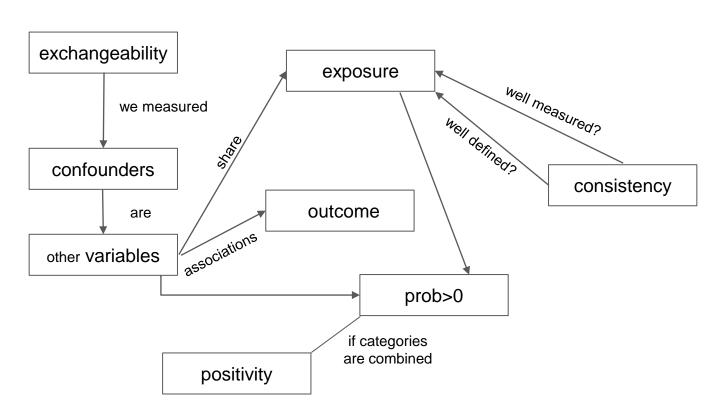
# Machine Learning



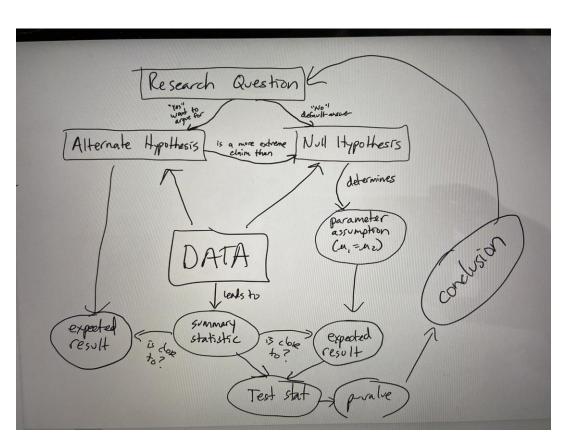
# Log Odds



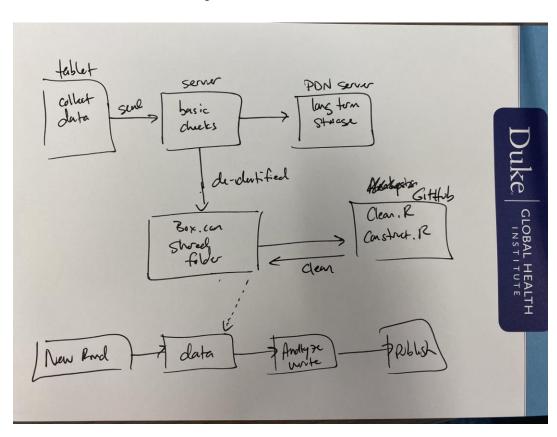
## Identifiability Assumptions for Causal Inference



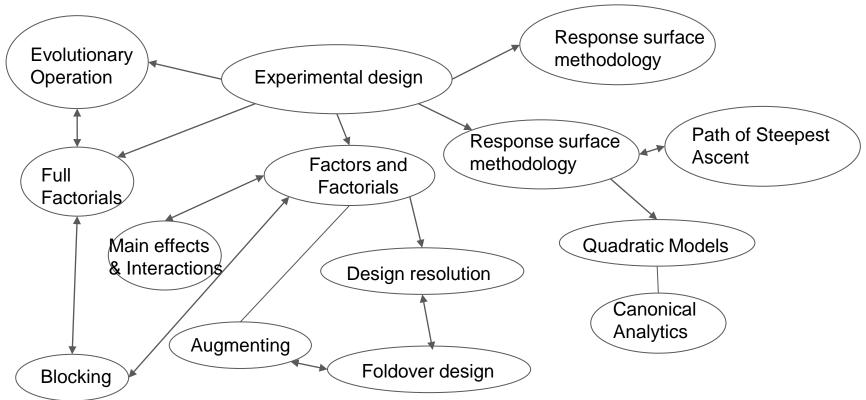
#### Research Workflow



# Data Analysis Workflow

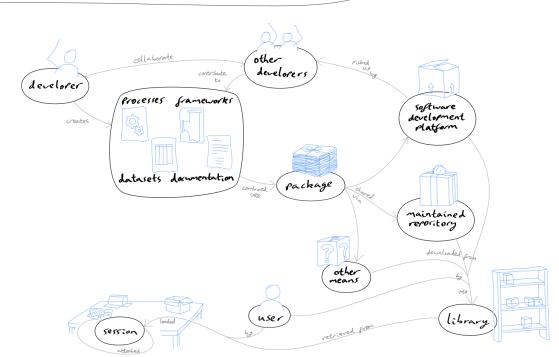


# Experimental Design

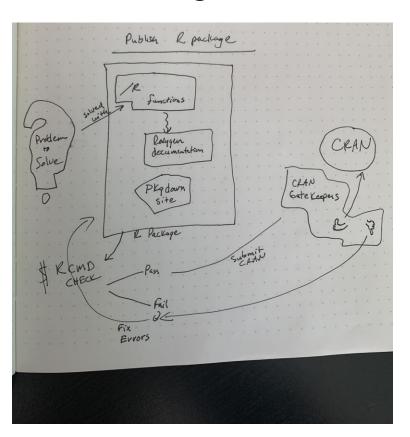


# Sharing R Code as Packages

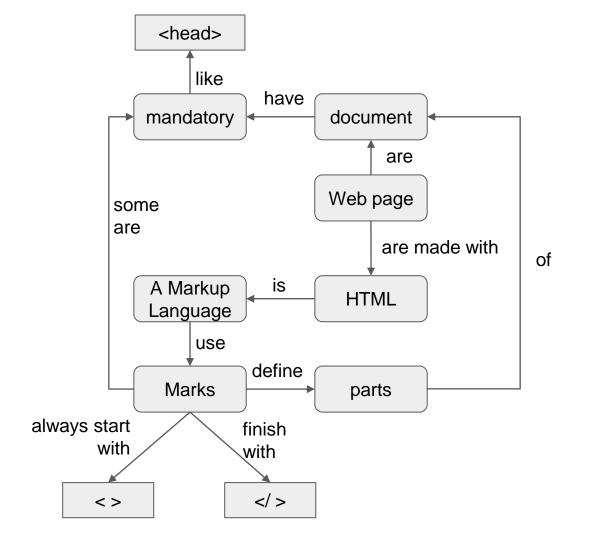
Sharing R code with packages

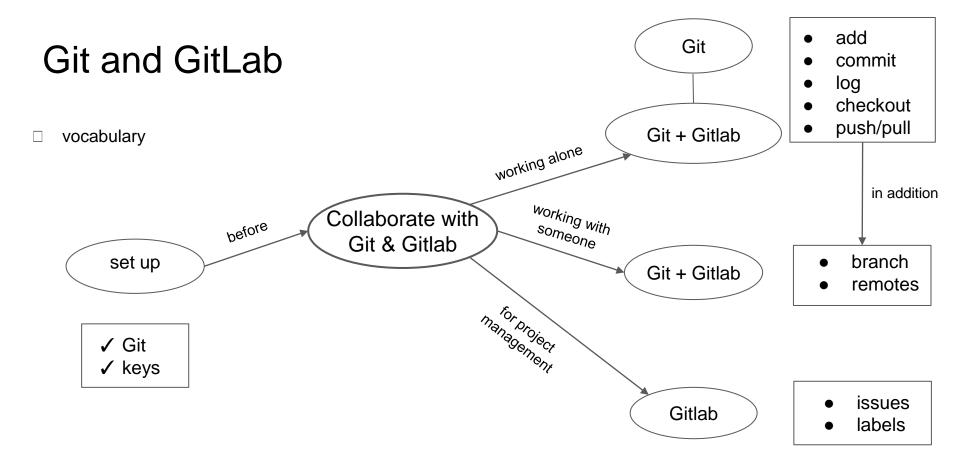


# Publishing an R Package

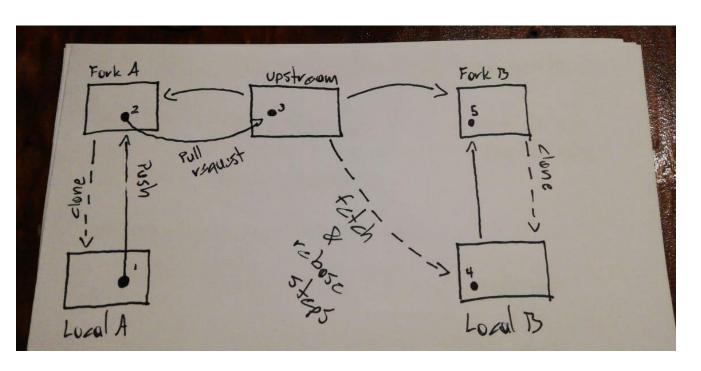


#### HTML

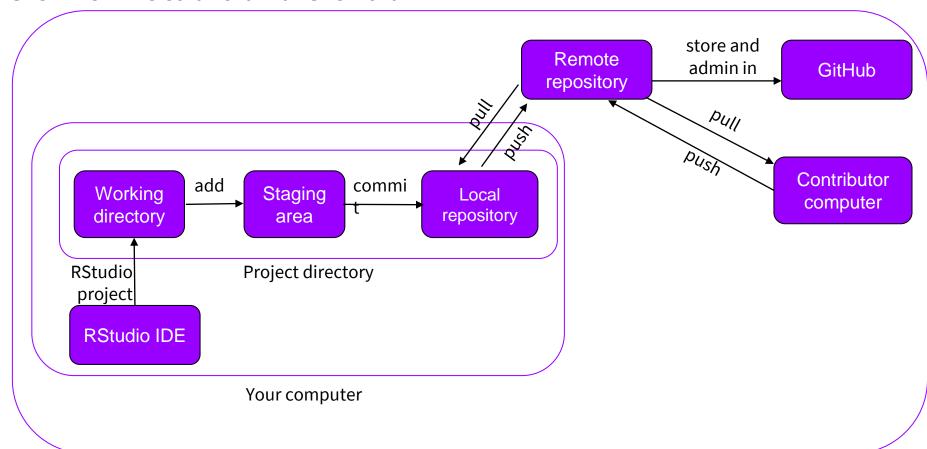




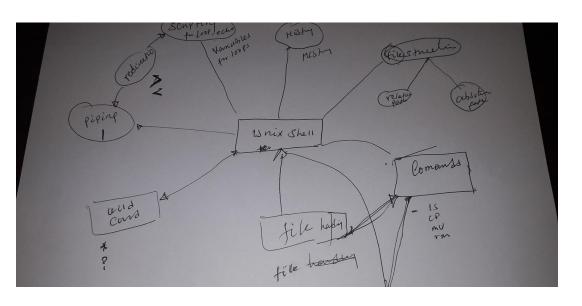
#### Git Workflow



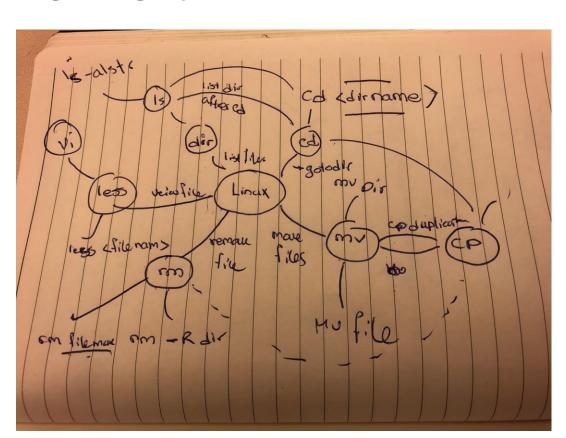
#### **Git with RStudio and GitHub**



#### **Unix Shell**



#### **Unix Shell**



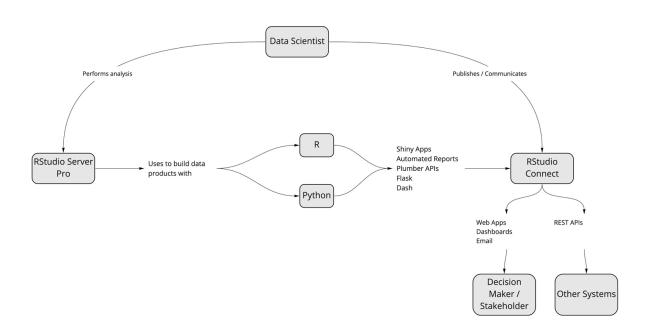
## Publishing Data on a Server



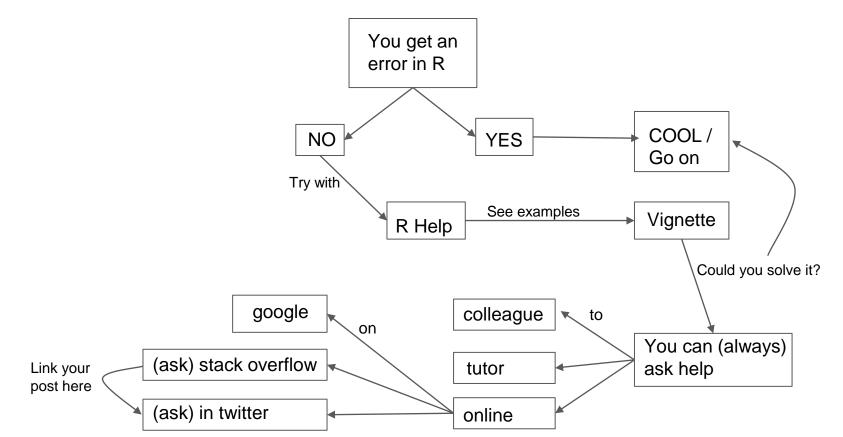
#### Administering RStudio Server Pro

Administering Rstudio Server Pro source install runs via binary System admin Rstudio must RStudio Pro database Server Pro drivers odbc.ini/odbcinst.ini Auth provider edit writes configfiles configure logfiles data Admin dashboard using Displayed monitor External tool, e.g.

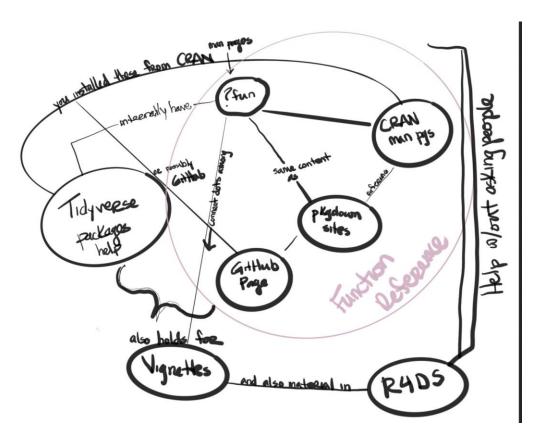
#### Where Data Scientists Fit In



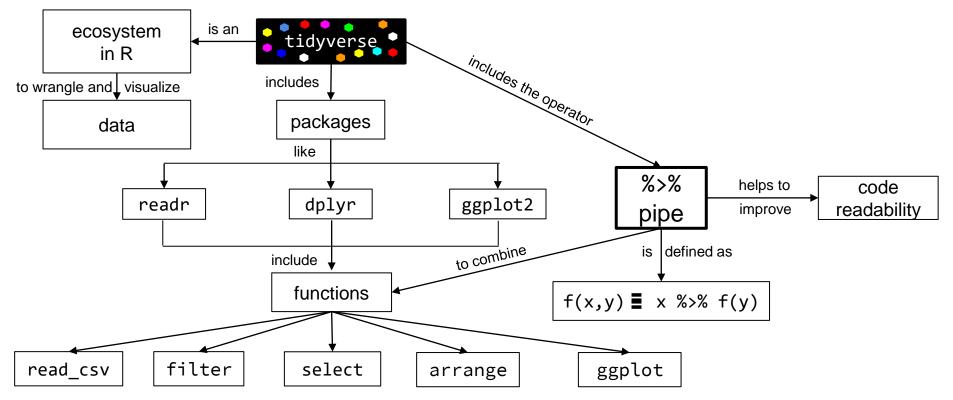
### Getting Help for R



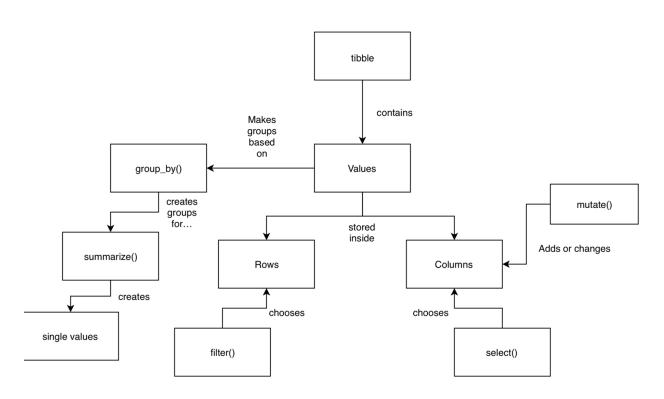
### Getting Help for R



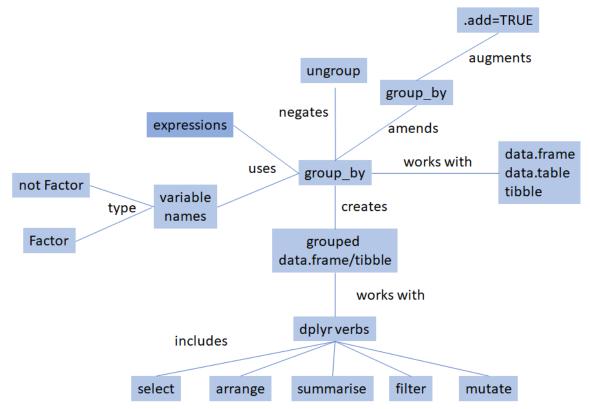
### Tidyverse and the pipe operator



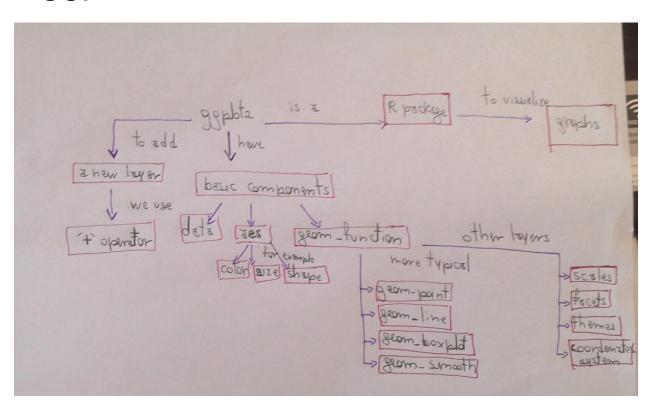
## Main dplyr Verbs



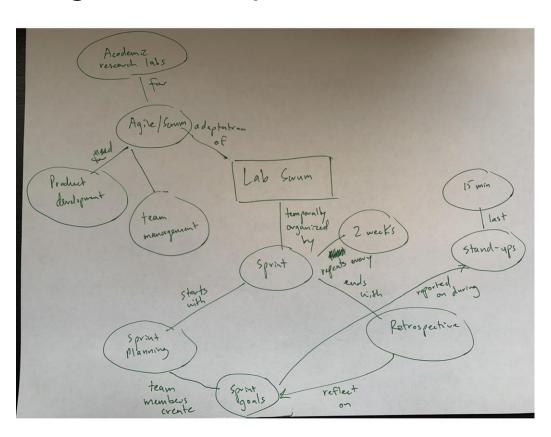
#### dplyr grouping



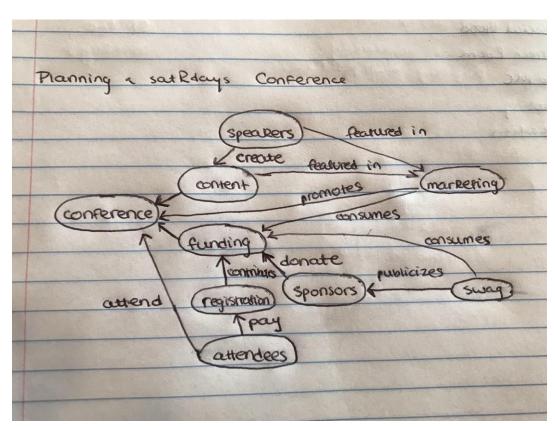
# ggplot2



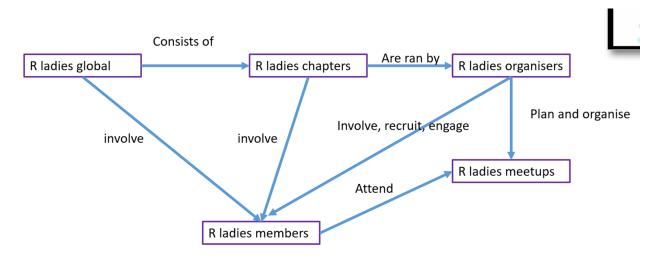
#### Agile Development



## satRday Planning



#### R-Ladies



#### How to Set-up an R-Ladies Chapter

