

Data extraction, transformation, and loading in R

Ernest Guevarra

2022-02-07

Outline

- Concepts and considerations about data
- Practical session

Concepts and considerations about data in tweets and quotes

Consideration #1:

Data cleaning/processing/checking is an important, but very challenging, step when working with data



Data Science Fact

@DataSciFact



Data cleaning code cannot be clean. It's a sort of sin eater.

♡ 83 7:28 PM - Jul 25, 2014



💬 83 people are talking about this



@StatFact tweet



Allison Reichel

@AllisonReichel



I will let the data speak for itself when it cleans itself

♡ 18.6K 3:48 PM - Jan 15, 2021



💬 2,436 people are talking about this



@AllisonReichel tweet

and I'm still pretty sure some of the data is missing, but it could still be here, in this ONE HUNDRED SHEET excel file

[@RallidaeRule](#) tweet



Amelia McNamara

@AmeliaMN



Never check data when you are hungry, thirsty, or tired. Words to live by from [@GhazalGulati](#)! [#datamishapsnight](#)

♡ 38 1:19 AM - Feb 6, 2021



 [See Amelia McNamara's other Tweets](#)



@GhazalGulati, via @AmeliaMN tweet

**Classroom data are like teddy bears; real data
are like a grizzly with salmon blood dripping
out its mouth.**

@JennyBryan, via @sgrifter tweet



Karl Broman

@kwbroman



“Working with data is not about rules to follow but about decisions to make.” – @naupakaz

♡ 12 2:55 PM - Jan 11, 2016



 See Karl Broman's other Tweets



@naupakaz, via @kwbroman tweet

Consideration #2

Big data is what everyone is talking about



Calling Bullshit

@callin_bull



Big Data: (n): the belief that a big enough pile of horseshit will, with probability one, somewhere contain a pony.

(thanks to @mlipsitch)

♡ 245 12:37 AM - Feb 15, 2017



💬 159 people are talking about this



@mlipsitch, via @callin_bull tweet

Let's start the "titanic data" movement. Data too big to fail.

@neilfws with assist from @aaronquinlan, tweet

Consideration #3

Data sharing requires a well-thought out process that everyone can follow



Peter Hickey

@PeteHaitch



Replying to @davisjmcc

Last week I told a collaborator to stick the files on a USB drive and walk the 100m across the road rather than figure out inter-institute file sharing

♥ 19 7:31 AM - Feb 14, 2019



 [See Peter Hickey's other Tweets](#)



@PeteHaitch tweet

Consideration #4

Working with data in R is great!



Tom

@tggleeson



R is a datasmith's heaven-on-earth; I like Python, long term relationship with Excel, quite like Power Query, DAX's a keeper, but I love R.

♡ 17 10:57 PM - Apr 22, 2015



 [See Tom's other Tweets](#)



@tggleeson tweet

Practical session

Practical session

- We will all go through Exercise #1 in the [Practical R for Epidemiologists](#) book
- This is also one of your next assignment for this lecture series

Questions?

Thank you!

Slides can be viewed at <https://OxfordIHTM.github.io/open-reproducible-science/session3.html>

PDF version of slides can be downloaded at <https://OxfordIHTM.github.io/open-reproducible-science/pdf/session3-working-with-data-in-r.pdf>

R scripts for slides available [here](#)