Marketing Strategy

Professor: Davide Proserpio
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Office hours: Monday 2- 4 pm or by appointment (to be scheduled via email).

Class Hours and Locations

Mon/Wed/Fri, 8:30 am – 10 am , 10:15 am – 11:45 am
Room: TBD

Course Description

Research and writing papers usually take a long time, and it is common to have a paper going through a review process for several years. Implementing a good and efficient workflow not only makes research easier and more efficient, but it is essential when working on multiple projects with multiple co-authors for several years. In this class, we will cover practical tools and skills that will benefit your research and future career. We will cover topics like version control and project management, data collection, storage, cleaning, and visualization using tools such as GitHub, R (and RStudio), and MySQL. In short, we will cover things that I wish someone had taught me when I was starting out in graduate school.

Please bring your laptops to class. This will be a very hands-on course. We'll be working through lecture notes together in class, and you'll be running code on your own machines.

Software requirements

R and RStudio
https://www.r-project.org/
https://www.rstudio.com/products/rstudio/

Git and Github
https://git-scm.com/downloads
https://github.com/

MySQL Client
Mac: https://www.sequelpro.com/
Windows: https://www.mysql.com/products/workbench/

Textbook and readings

There is no set book for this course. The lecture slides are detailed and self-contained. However, there are several books and courses from which borrow material for this course. Each of these books/courses is freely available online:
- Grant McDermott's EC 607 course to whom I dedicate a special thank you for sharing the course material

- [Data Visualization: A practical introduction](#), Kieran Healy
- [R for Data Science](#), Garrett Grolemund and Hadley Wickham
- [Advanced R](#), Hadley Wickham
- [Geocomputation with R](#), Robin Lovelace, Jakub Nowosad and Jannes Muenchow
- [Spatial Data Science](#), Edzer Pebesma and Roger Bivand
- [R Markdown: The Definitive Guide](#) (Yihui Xie, JJ Allaire, and Garret Grolemund)

Lectures outline

- March 4: Intro to the course
- March 6: GitHub
- March 8: The shell
- March 11: R language basics
- March 13: Data manipulation & data viz (tidyverse, data.table, ggplot)
- March 15: Data storage: MySQL

Course notes and attendance

Please note that the professor reserves the right to make changes to this syllabus at any time throughout the semester. Changes to this syllabus – if any – will be announced and explained in class.

Attending the classes is an important part of learning. Your understanding of the course materials will be at a different level if you participate in the classes. It is the responsibility of the student to make up for missed lectures and discussion sections by meeting with a classmate to review what was discussed on the missed day, and by asking the professor questions during office hours regarding missed material.

Grading Policies

The various components of the course grade are weighted as follows:

ASSIGNMENTS	POINTS
Homework assignments	20%
Project	40%
Short presentation	20%
Participation	20%

The project involves the analysis of a dataset of your choice using the tools we learned in class
- You will present your data analysis during the last day of class
- Where can I find datasets?
  - [Google dataset search engine](#)
  - [Kaggle](#)
  - All Marketing Science papers come with replication code and data
  - You can scrape it yourself (advanced, we probably won't have time to cover scraping)
  - Ask me (Airbnb, Yelp, Expedia)

Short presentation of a R package or tool related to the lectures (I will provide a list among which to choose)

All **assignments** must be submitted using RMarkdown:
- Website: https://rmarkdown.rstudio.com
- Cheat sheet: https://github.com/rstudio/cheatsheets/raw/master/rmarkdown-2.0.pdf, https://www.rstudio.com/wp-content/uploads/2015/02/rmarkdown-cheatsheet.pdf
- Book: R Markdown: The Definitive Guide (Yihui Xie, JJ Allaire, and Garrett Grolemund)