## Exam 3 - Data Science for the Social World

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## Instructions

This is a two-hour, open-book, open-internet exam. As soon as you click on the exam on Canvas is when your timer starts. If you submit the exam late, you will be penalized by 1 point for each minute late that you submit. For example, if you submit 5 minutes late, you will lose 5 points on your overall exam grade.

In terms of your submission, Canvas will only allow you to submit one file. That one file should be either a PDF file or Word document corresponding to the output of your R Markdown file. Kindly note that we will not accept Google Docs, and that you must write your exam using R Markdown. Students who use a regular R script and then copy/paste outputs onto a Word Document or PDF file will receive a 20-point penalty.

The last question of the exam asks you to submit a link to a GitHub repo with your .Rmd, .dta, and PDF file/Word Document. Failure to submit a link with all of these files to a working GitHub repo will result in an additional 15-point penalty. You may name the repo anything that you would like, but maybe something like "exam3" would be appropriate. Since GitHub provides time stamps for everything, we will be able to discern if you modify the files outside your two-hour exam window. In short, please respect the two-hour window.

Please work independently. You may *not* consult anyone in the class or outside the class for help, and you may not post the exam questions on the Stack Exchange, Google Groups, or any similar website. However, you may visit these websites or others. Please also do not discuss the questions or answers over WhatsApp, GroupMe, text message, or any other platform, especially because everyone will be taking the exams at different times. We will be monitoring accordingly, and anyone who violates any one of these policies will receive a zero on the exam.

Please annotate your R code chunks in your R Markdown file with comments, or make sure that the text surrounding it sufficiently explains what you are doing. Essentially, your R Markdown file should mimic that notes files that we submit on Canvas to accompany the

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video lectures. We will remove points when you do not provide clear comments or explanation to tell us exactly what you are doing with your code.

We have endeavored to make the exam self-explanatory, but feel free to email the instructors and the TA if you have questions. At least one of us will be available over email for the entire 4-hour exam. However, please email all three of us if you have a question (i.e., do not email only one or two of us), because we will be taking shifts.

One final note: if you have an SSD accommodation, please submit your exam under "Exam 3 (accommodation)". Otherwise, please submit on Canvas under "Exam 3".

And one final hint: use your time wisely. If you can't answer one question, move on to the next one, and come back to it once you are done with the ones that you can answer more quickly. Good luck!

## Questions

Final question. Save all of the files (i.e. .Rmd, .dta, .pdf/Word Doc), push them to your GitHub repo, and provide us with the link to that repo.