Final Project: Group 5. Effect of Russian Trolls on the 2016 U.S. Presidential election.

Ryan Appel

Angel Arribas

Drew Breyer

Humza Kahn

Devanshi Patel

Hanna Shin

Poonam Siyag

# Introduction

## Getting started

Loading packages is boring and time-consuming. First, you need to install packages. Second, you need to run them in R’s environment. {r, include=FALSE} if (!require("pacman")) install.packages("pacman") p\_load(data.table, dplyr) # two modern packages to modify data objects in R p\_load(stargazer) # a package to summaries regression results p\_load(ggplot2, ggpubr) # two packages to visualize data `%+%` <- function(x,y){paste0(x, y)} # collapse two strings into one theme\_set(theme\_pubr(border = TRUE)) # make figures beautiful and ascetic by default

## Custom Functions

# The below function provides a percentage after being passed a part and whole data.table  
percentage <- function(part, whole, rounding.digits = 3) {  
 part.count <- nrow(part)  
 whole.count <- nrow(whole)  
 percentage <- part.count / whole.count  
 percentage <- percentage \* 100  
 percentage <- round(percentage, rounding.digits)  
 return (percentage)  
}  
  
print.percentage <- function(part, whole, rounding.digits = 3) {  
 p <- percentage(part, whole, rounding.digits)  
 print( p %+% "%")  
}

## Loading data

Load dataset d and inspect its structure.

path <- 'https://raw.githubusercontent.com/RappelBerryPi/PSCI6303FinalProject/main/0-data/experiment\_data.csv'  
d <- fread(path)

let’s start with summarizing the data

glimpse(d)  
percentage.control <- percentage(d[treated == FALSE,], d)  
percentage.treatment <- percentage(d[treated == TRUE,], d)  
percentage.control.changed <- percentage(d[treated == FALSE & voting\_plan\_2024 != general\_voting\_preference,], d[treated == FALSE,])  
percentage.treatment.changed <- percentage(d[treated == TRUE & voting\_plan\_2024 != general\_voting\_preference,], d[treated == TRUE,])

now let’s do a DID by looking at our variables: treatment and number\_of\_troll\_tweets\_seen vs if their 2024\_voting\_plan is the same as their general\_voting\_preference. First we have to create some extra columns.

mean\_tweets <- mean(d$number\_of\_troll\_tweets\_seen)  
d <- d[,voting\_plan\_different := voting\_plan\_2024 != general\_voting\_preference]  
d <- d[,affected := number\_of\_troll\_tweets\_interacted\_with > number\_of\_troll\_tweets\_reported]  
model.did <- lm(data = d, voting\_plan\_different ~ treated + affected + treated:affected)  
stargazer(model.did, type = "text")