Justin Trudeau would still win 2019 Canadian Federal Election even if "everyone" had voted*

Wen Wang

21 December, 2020

Abstract

This paper investigated whether Justin Trudeau or Andrew Scheer would win 2019 Canadian Federal Election if "everyone" had voted by using MRP technique based on GSS and CES datasets. The result is that Justin Trudeau would still win even if everyone had voted. The analysis on the topic is important since it might increase the participtions of citizens during the next election period, especially if the election reulst would change, and this might result in a tremendous change in the future of a country.
keywords: 2019 Canadian Federal Election; MRP; everyone voted;

From the Figure **??** and Figure **??**, we could see the AUC of both of them is much greater that 0.5. Therefore, we could conclude our models are good and valid.

–>

–>

–> –> –> –> –> –> –> –> –> –>

–>

–> –> –> –> –> –> –> –> –> –> –>

4.2 Weaknesses

4.3 Next Steps

Appendix

In this report, we used R [R Core Team, 2020], Rstudio [RStudio Team, 2020] and R packages: tidyverse [Wickham et al., 2019],lme4 [Bates et al., 2015], knitr [Xie, 2019] [Xie, 2015] [Xie, 2014], cesR [Hodgetts and Alexander, 2020], labelled [Larmarange, 2020] and pROC [Robin et al., 2011].

References

Douglas Bates, Martin Mächler, Ben Bolker, and Steve Walker. Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1):1–48, 2015. doi: 10.18637/jss.v067.i01.

Paul A. Hodgetts and Rohan Alexander. *cesR: Access the CES Datasets a Little Easier.*, 2020. R package version 0.1.0.

*Code and data are available at: https://github.com/wangw218/STA304_FinalProject

Joseph Larmarange. *labelled: Manipulating Labelled Data*, 2020. URL https://CRAN.R-project.org/package=labelled. R package version 2.7.0.

R Core Team. *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria, 2020. URL https://www.R-project.org/.

Xavier Robin, Natacha Turck, Alexandre Hainard, Natalia Tiberti, Frédérique Lisacek, Jean-Charles Sanchez, and Markus Müller. proc: an open-source package for r and s+ to analyze and compare roc curves. *BMC Bioinformatics*, 12:77, 2011.

RStudio Team. *RStudio: Integrated Development Environment for R*. RStudio, PBC, Boston, MA, 2020. URL http://www.rstudio.com/.

Hadley Wickham, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolemund, Alex Hayes, Lionel Henry, Jim Hester, Max Kuhn, Thomas Lin Pedersen, Evan Miller, Stephan Milton Bache, Kirill Müller, Jeroen Ooms, David Robinson, Dana Paige Seidel, Vitalie Spinu, Kohske Takahashi, Davis Vaughan, Claus Wilke, Kara Woo, and Hiroaki Yutani. Welcome to the tidyverse. *Journal of Open Source Software*, 4(43):1686, 2019. doi: 10.21105/joss.01686.

Yihui Xie. knitr: A comprehensive tool for reproducible research in R. In Victoria Stodden, Friedrich Leisch, and Roger D. Peng, editors, *Implementing Reproducible Computational Research*. Chapman and Hall/CRC, 2014. URL http://www.crcpress.com/product/isbn/9781466561595. ISBN 978-1466561595.

Yihui Xie. *Dynamic Documents with R and knitr*. Chapman and Hall/CRC, Boca Raton, Florida, 2nd edition, 2015. URL https://yihui.name/knitr/. ISBN 978-1498716963.

Yihui Xie. *knitr: A General-Purpose Package for Dynamic Report Generation in R*, 2019. URL https://yihui.name/knitr/. R package version 1.23.