Title

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EDLD654 Machine Learning for Educational Data Science

Final Project Report

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Reproducibility Note: Please use this link to view the GitHub repo. All codes used for this report can be found in the **EDLD654 Final Project Code** R Markdown file located within the **R** folder.

Research Problem

The effects of the COVID-19 pandemic have been (and continue to be) felt across the world, dramatically altering societal norms and interactions. Due to the immediate devastation and residual impacts prompted by the virus, the World Health Organization (WHO) and other governmental institutes around the globe responded by recommending (and in many cases, enforcing) the practice of social distancing through stay-at-home orders (Matias et al., 2020). While this tactic aimed to slow the spread of COVID-19, it also resulted in mass isolation, increasing people's vulnerability by restricting access to basic human needs (i.e., healthcare, resources, and social connections; Matias et al., 2020). The pandemic also amplified digital media use, allowing for social applications such as Twitter to garner rapid popularity (Bellan, 2020).

Description of Data

Description of the Models

Data Visualization

Model 1:

Model 2:

Model 3:

Model Fit

Discussion/Conclusion

References

Bellan, R. (2020). The Top Social Media Apps of 2020, According to Apptopia. *Forbes*.

Matias, T., Dominski, F. H., & Marks, D. F. (2020). Human needs in COVID-19 isolation. *Journal of health psychology*, 25(7), 871-882.

Preda, G. (2020). *COVID19 Tweets* [Data set].Kaggle. https://www.kaggle.com/datasets/gpreda/covid19-tweets/data?select=covid19_tweets.csv.