

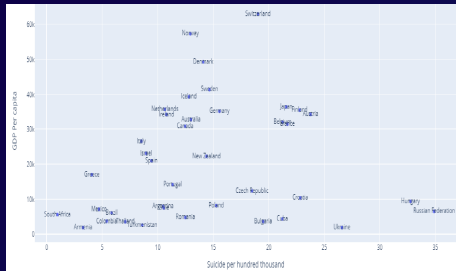
SUICIDE ANALYSIS AND PREDICTION

Mani Sujil Koottathampathiyil, Dundalk Institute of Technology
MSc, Data Analytics



Introduction

This iteration is a deep dive into the suicide dataset in order to learn a lot more about the causes of the thousands of suicides that occur each year around the world. This study aims to provide new insights that can aid government agencies in better understanding the issues that lie behind them. This research may also aid them in the development of novel techniques to reduce death rates over time. This study will examine a number of suicide characteristics in order to forecast how many additional fatalities will occur in various nations in the coming years.

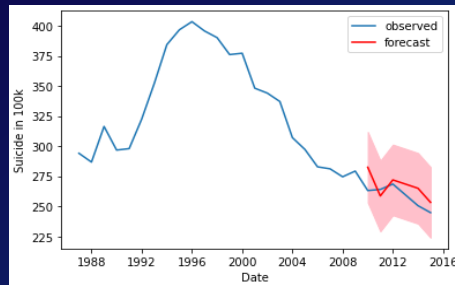


Objectives

1. Gain a better understanding of the causes of suicides.
2. Create a dashboard and make it freely accessible to everybody.
3. Assist the government in reducing the rising suicide rates.
4. Create a dash app with a variety of features and update the dataset with new data every day.
5. Suicide predictions over the next few years
6. Make data analytics a significant instrument for addressing societal issues.

Research Questions

1. Examine the relationship between suicide and other features.
2. Which countries suffer from the greatest number of suicides?
3. Which age groups are at a higher risk of suicide?
4. Determine number of suicides that will occur in each continent.
5. Predict which nations has the fewest suicides in the future.
6. Determine age range of individuals who are more prone to commit suicide.
7. Look for characteristics that influence suicidal behavior.
8. Determine the most effective models for predicting suicide data.



Data Collection and preparation

Kaggle data was collected for the purpose of suicide study and saved to a password-protected hard drive on a Windows system. On a few features, imputation was used to clean the data. A few variables were deleted since they were irrelevant to the investigation.

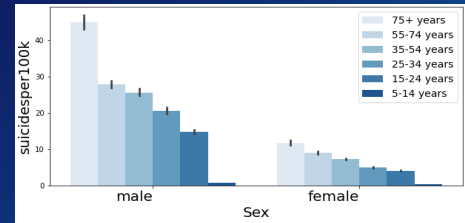
Email : d00242726@student.dkit.ie

Mob : +353 89 273 8178

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web : www.dkit.ie

Ethical Consideration

1. Aggregated Dataset, which does not include any personal information.
2. Storage systems that are reliable
3. Advanced Laravel Framework with CSRF Token
4. Windows drive encryptions.
5. App with disclaimer about privacy policies.



Results

1. When compared against other algorithms, the ARIMA model outperformed the others.
2. Countries like Russia, Ukraine, Hungary seems to have highest number of suicide rates.
3. In comparison to other models, ARIMA and Decision tree classifiers provided me with greater accuracy.

Future Works

1. In future, a live dashboard app will be built with dynamic visualisations.
2. Data collection back end admin panel.
3. Feedback section from user to improve the app.
4. CRON jobs run for automatic running of models.
5. CRISP-DM Methodology will be used

