

Insights into International Relations

Math 23C Spring 2020 Final Project - One Page Handout

Mohit Negi, Ferran Vega

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Data

The primary dataset used in this project is Gary King's "10 Million International Dyadic Events" dataset from Harvard dataverse. The data available here include almost 10 million individual events, each coded to the exact day they occur or become known. Each event is summarized in the data as "Actor A does something to Actor B", with Actors A and B recording about 450 countries and other (within-country) actors and "does something to" coded in an ontology of about 200 types of actions. We also use several other datasets that include data on borders between countries, civil conflicts, GDP per capita, Human Development Index (HDI), main religion and dominant ethnic group, as well as wars and alliances between countries.

Topic 1: Peer Influence in International Relations.

In this topic, we exploit the properties of the Exponential and Weibull probability distributions to see which Inter-country dyadic events might be peer-influenced and which might not.

Topic 2: Does providing Aid buy Softpower?

In this topic, we explore (and verify) the hypothesis of whether providing Aid to a country significantly impacts the probability of receiving a Threat from it.

Topic 3: The (not-so)Great Escape : Analyzing Political Exile.

In this topic, we explore what factors might determine where dictators (and politicians in general) flee to when escaping crises.

Topic 4: Minding their own business: Geographical Isolation and development.

Here we analyze HDI and Geographical contiguity data to determine if there is a statistically significant impact of having no borders i.e. being isolated on HDI levels. For this, we make use of the Pearson's Chi-squared test. We then use a Permutation test after which we compare the two methods.

Topic 5: The World Belligerence Index : Constructing a Global Index using PCA.

In this topic, we construct a "World Belligerence Index" using Principal Component Analysis. We then regress the Index scores on GDP per capita, HDI, Civil conflicts and a binary variable for presence of a border with another country.