



AN EXPLORATION OF SPATIAL MUSIC CONSUMPTION THROUGH THE LENS OF SOCIO-POLITICAL POWER

Team 30: Liz Olson, Juliana Menezes, Tobi Taiwo, Shivali Vashisht & Xiaoxiao Zeng

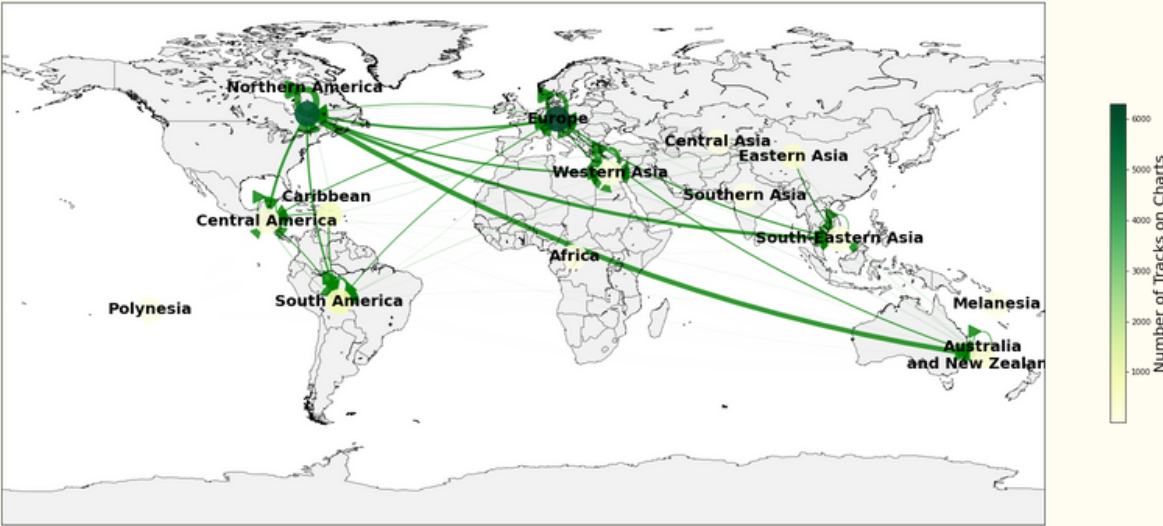
Background

In our current socio-economic organization, the music industry is a highly profitable branch of the entertainment business. Moreover, with the rise of globalization and increasing cultural exchange among nations, music has never been so borderless.

Are international exchange of music equitable across socio-political lines? Research in regards to the impact of cultural diffusion, historical and current events, economic trade patterns and political alignment upon music streaming behavior is lacking and non-cohesive. We hope to generate public awareness in regards to cultural exchanges of music, using contemporary global streaming data through our analysis, highlighting these often overlooked factors.

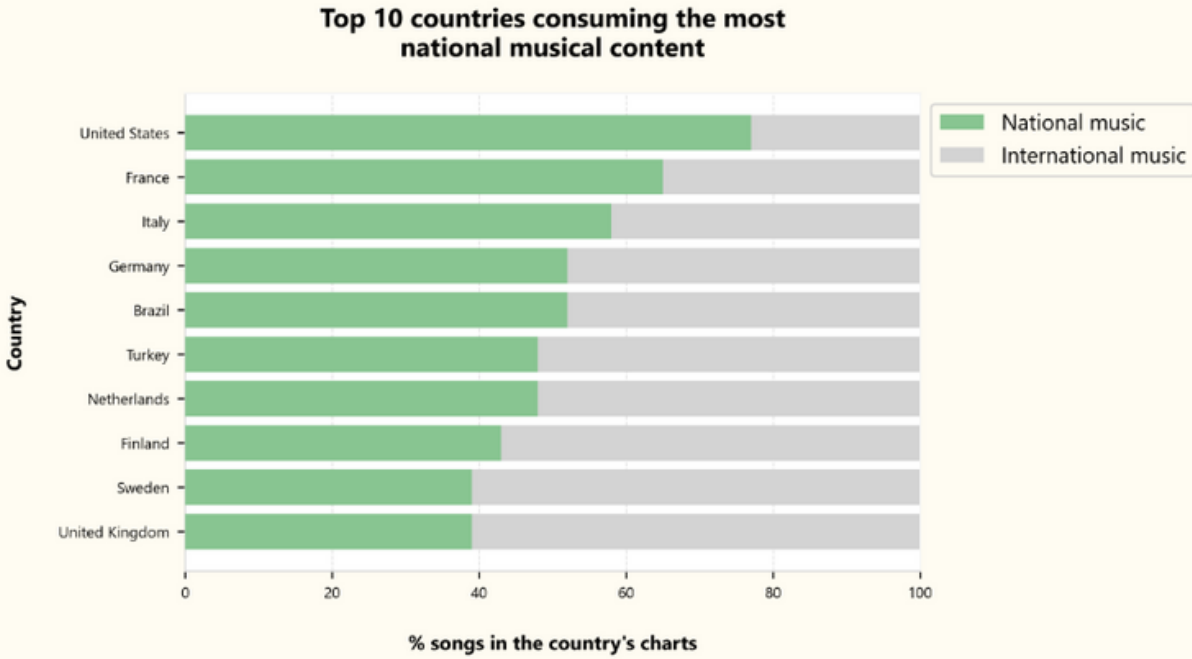
Data Exploration & Results

Network Map of Music Spread Across Regions



The network map shows the path of music spread across sub-region levels. It is clear that developed regions like Northern America and Europe have a large number of songs topping the charts globally. The upper loop for each region represents how they consume their own music within each region. It is evident that in both Northern America and Europe a large proportion of songs on their charts are coming from their own.

For a more in-depth analysis, our story map can be viewed at: bit.ly/3BAis2d



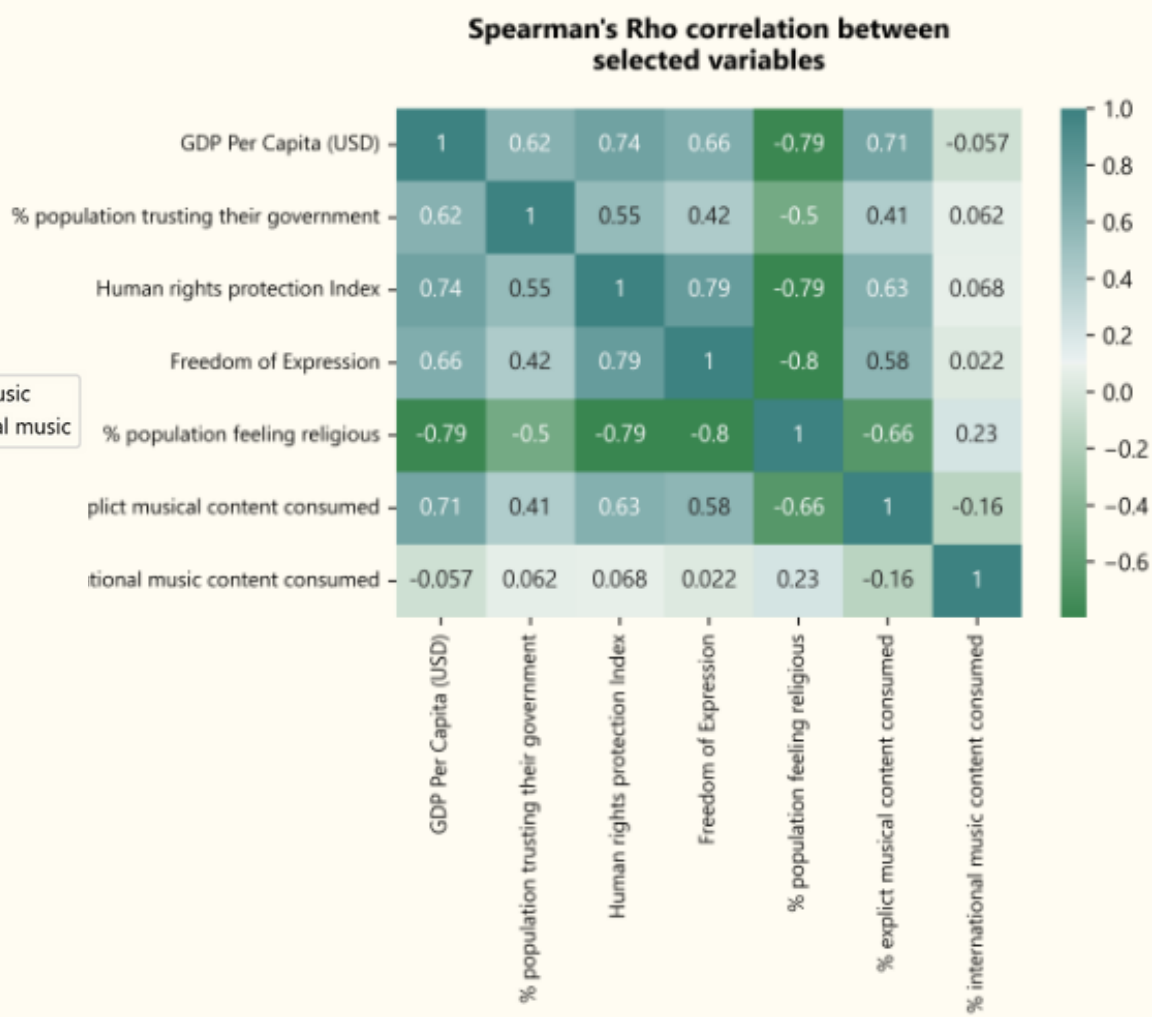
Socioeconomic Analysis

| Table 1: Regression Results | | | | |
|-----------------------------|---------------------|-----------------------|-------------------------|----------------------|
| | Dependent variable: | | | |
| | n_per_1m_capita | | | |
| | (1) | (2) | (3) | (4) |
| GDP Per Capita | 0.002*** (0.001) | 0.003*** (0.0005) | 0.003*** (0.0005) | -0.004*** (0.001) |
| Education Expenditure | | 17.326** (7.523) | 31.588*** (8.126) | -0.274 (9.544) |
| Net FDI Inflows | | | -0.774 (1.147) | 0.449 (1.038) |
| GDP x Education | | | | 0.001*** (0.0003) |
| Constant | 20.523 (21.621) | -76.786** (32.794) | -135.309*** (35.650) | 3.966 (41.805) |
| Observations | 109 | 89 | 87 | 87 |
| R ² | 0.097 | 0.386 | 0.487 | 0.608 |
| Adjusted R ² | 0.089 | 0.372 | 0.468 | 0.589 |

Note: *p<0.1; **p<0.05; ***p<0.01

GDP per capita and percent of GDP expenditure on education are highly correlated with the number of chart-topping songs per 1 million residents.

Controlling for net foreign direct investment outflows increases the magnitude and significance of this relationship, as well as the percentage of variation explained by the model.



Data Sources



Streaming Data

Socioeconomic Data

Conclusion & Next Steps

No; international exchanges of music are not equitable across socio-political lines

European charts have more diverse streaming behavior and notable contributions of other nations in their top charts. Western and developed countries are overly represented in the top 10 nations, contributing to global charts as “exporters”.

Future studies should integrate charts from African, Asian and Middle Eastern countries so this is a more comprehensive analysis. In our dataset, 50% of nations were European. Furthermore, Spotify has paid subscription plans and is not in use everywhere. This analysis can be conducted with an alternative music streaming platform with a wider audience reach.