FIT-5147: Data Exploration and Visualization: DEP

Diversity and Inclusion — A dive into queer rights and acceptance around the globe.

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Source: https://www.lbcc.edu/sites/main/files/imagecache/lightbox/main-images/lgbtq-resources-tile.jpg

Introduction:

I am a queer in tech from a third world country where homosexuality is not as much accepted as it is here in Australia. Currently there have been world-wide developments in the laws and amendments in various countries with USA banning drag culture in the state of Tennessee and India having a Supreme Court Hearing about the legalisation of same sex marriage.

I feel this is an important topic to have insights on. Therefore, my aim is to compare various outlaws prevalent in all the countries and effects on workplace diversity and inclusion using a survey data.

This project tries to answer the following questions:

- Legality of homosexuality around the globe. Religion and its impact over the acceptance.
- Severity of the laws against the queer community in the countries still considering it illegal.

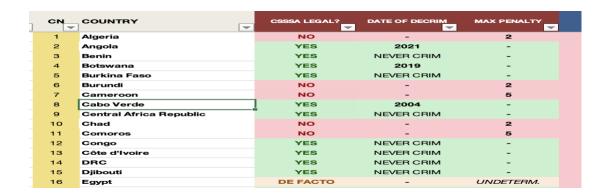
- Travel preferences for the people within the community.
- Comparing the queer rights and protection across the countries which includes the constitutional, right to marriage and employment protection.

Data Checking and Wrangling

The data used in the project was in the form of "csv" files. The raw data has missing data and other discrepancies which needs to clean before performing exploratory tasks. We have used R, Excel, and Tableau to wrangle and clean the data.

Datasets	URL	Dataset Size
IGLA Diversity and Equality Data	https://ilga.org/downloads/ILGA_World_St ate_Sponsored_Homophobia_report_glob al_legislation_overview_update_December _2020.pdf)	243 x 16
Religion Data	https://www.rainbow- europe.org/https://www.pewresearch.or g/religion/2015/04/02/religious- projection-table/	1205 x 15
Global Travel Index	https://spartacus.gayguide.travel/blog/spa rtacus-gay-travel-index/	1778 x 21

• <u>Country Names</u>: Few of the country names in the datasets are not in accordance with the global database. e.g. Cabo Verde is actually Cape Verde. These values are identified and changed using indexing in r. Also with the islands with their country name in parathesis were fixed using gsub() and regex expressions.



• <u>Date of Decriminalization:</u> IGLA data has date of criminalization which mentions the year that homosexuality was decriminalized. This column has some values in form of year range which needs to be set equal to the upper range of the values.



• **Population Count:** In religion data, the column for population has the value in string format and with the special characters like "<". These need to be fixed and the columns were converted to numeric values. gsub() and regex expression were used to achieve this desired output.



• The most common religion in each country was derived by transforming the dataframe into long format using melt function. Later, this data was group by country and max of each religion is taken into dataframe using slice () resulting in the desired

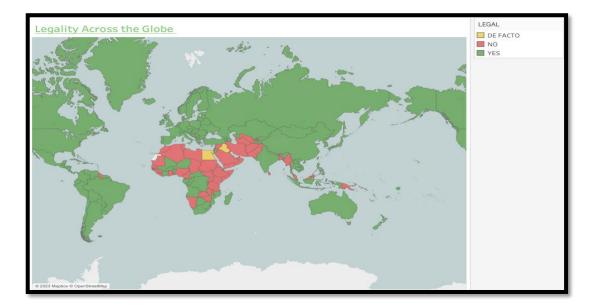
output.

DEP_DataCleaning.Rmd* × global_travel_index_data ×			most_common_relig	
	₹ Filter		0	
_	Country	Religion	Population +	
1	Afghanistan	Muslims	40610000	
2	Albania	Muslims	2640000	
3	Algeria	Muslims	39430000	
4	American Samoa	Christians	60000	
5	Andorra	Christians	70000	
6	Angola	Christians	22190000	
7	Anguilla	Christians	10000	
8	Antigua & Barbuda	Christians	90000	

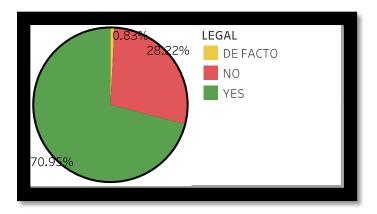
After all the necessary transformations the data is stored in csv files using read_csv().
These csv files are used in Tableau to perform data exploration. The data from all the sources are merged within Tableau itself based on Country Name.

Data Exploration:

• <u>Legality and Criminalization:</u> The following visual represents the legality of homosexuality across different countries.

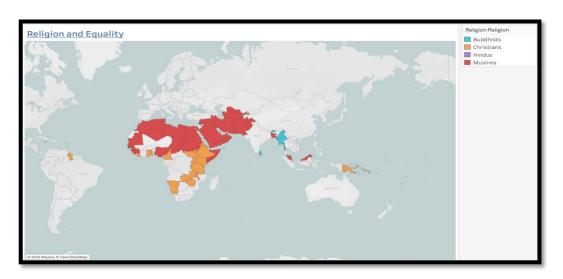


This shows that most of countries don't consider homosexuality as a criminal offence. The percentage distribution can be seen in the pie chart below.



Although having around 71% of the world legally accepting the queer community, still there is a lot of debate about basic human rights and equality among the nations. Religion plays one crucial role in acceptance. Islam and Christianity straight away claims this as sin and people have their reservations about this being natural.

Below is the visual representation of the countries where it is illegal and their most followed religion.

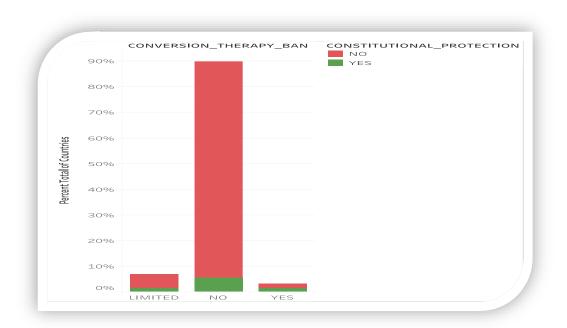


Most of the middle eastern and African countries have homosexuality as a criminal offence with severe punishments. The division of religion shows that major proportion of these countries have Islam and Christianity as their major religion. Although, other westerns countries across America and Europe also have Christianity as their most followed religion but the laws are not against the community. This suggests that religion might have an impact on psychological perception of the queer community but still that is not the only parameter to govern those laws. Socioeconomic conditions and literacy might also have a major impact on laws and mentality of the people.

Though the practice of conversion therapy is violating human rights and causes severe alterations to human brain, it is still prevalent across the globe. Figure below shows the countries where there are no laws for banning the conversion therapies segregated by their most followed religion.

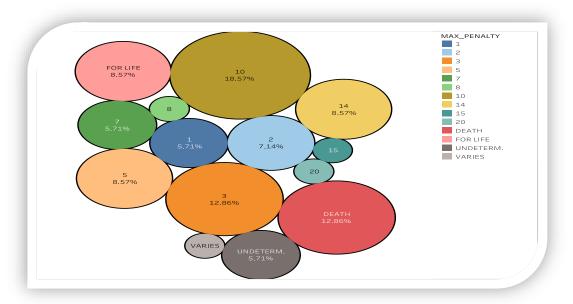


Even countries queer legal countries are lagging in banning this hideous practice of conversion therapies. It is clear from the visual below that conversion therapy is still a very common practice in around 80% of the countries having legal rights for the community.



• Severity of Punishments for Homosexuality as Criminal Offence:

Though only around 29% countries consider homosexuality as an offence, the punishments for this can be brutal. The severity and duration for these can be observed below. The number of years or type of sentence is mentioned in the plots above followed by percent proportions of the countries where it is followed.

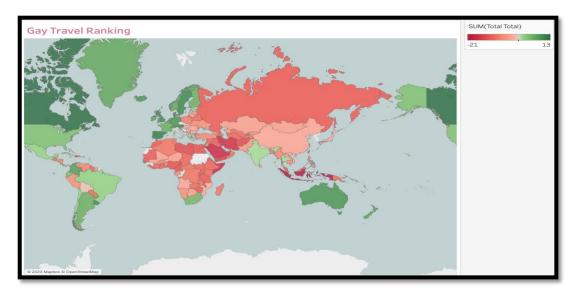


The most common punishments are for 10 years, followed by Death Sentence. There is no doubt on severity of these punishments, these are not only inhumane but also in violation to the human rights. There have been massive concerns about this and time and again they have raised at UN and Human rights conferences but still there has been no change to these punishments.

Conversion therapies are another form of torture where the individual is subjected to psychological, medical, or spiritual interventions in hope to alter their queer identity to fit into heteronormative and cisgender norms.

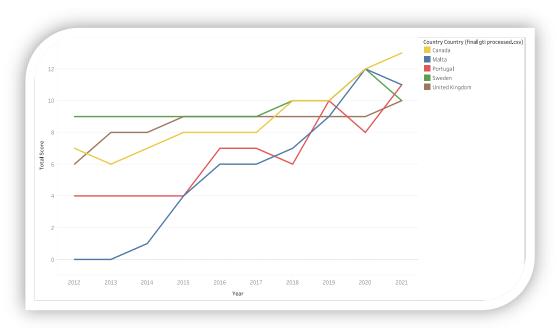
• **Queer and Travel:** Travel is one of the most enjoyed leisure activities among all individuals. Queer community however has their apprehensions surrounding the countries that they travel to.

Along with the location there are major concerns regarding basic human rights and safety of the individuals from the community. Gay travel index provides the dataset ranking the countries in their most to least likely to be visited by the community members. We visualize this trend using the heat map below.



Here the likelihood changes with respect to the color of the country. The green color represents more queer friendly country, on the other hand the red depicts the countries people have their reservations about. Western Europe seems to be most preferred location as they have high regards for human rights and inclusions.

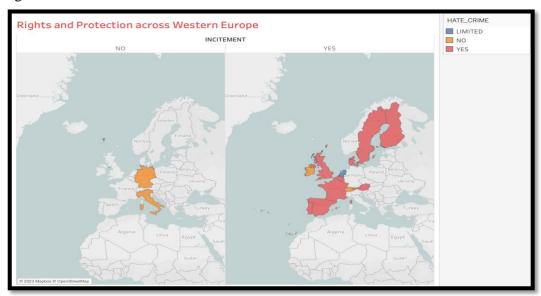
A comparative analysis on the topmost preferred countries over the years is shown in the line graph below:



The total score of country depends on various factors that include basic human rights, community protection, hate crime, etc. Sweden seems to be the most travel friendly country preferred by queer people, followed by Canada. Malta being neutral through the years 2012 - 2014 has stood up in Gay Travel Index significantly proving that how the laws and people have a changing mindset and acceptance.

• Acceptance and Inclusion across Europe: From our previous analysis we can infer that Western Europe is one of the most accepting regions when it comes to diversity

and inclusion. This is because of the high regard for human rights across these countries. Various rights and laws can be visualized across western Europe in the figure below:



Most of the countries across this region has protection against hate crime and incitement.

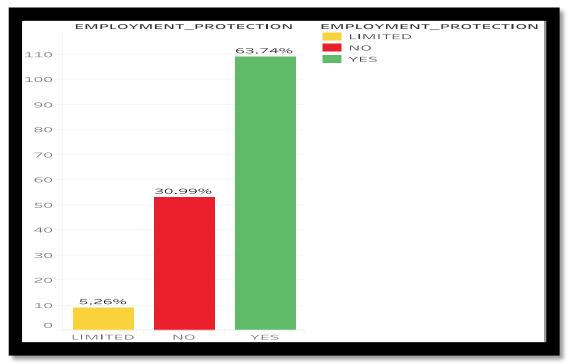
Right to marriage is also one of the crucial aspects which is being fought by people in various countries. India is the latest one to have a hearing in supreme court regarding the right. It is evident from the figure below that western Europe still stands out in here to provide same-sex couple legal right to get married.



Of all the legal countries only 34% of them provides the right to marriage for the same-sex couples as seen in Fig-1. In Fig-2 of all the western Europe around 71% of the countries provide the right to marriage.



Employment protection is another crucial aspect to a better and inclusive society. We can see that around the globe. Among the queer friendly countries around 64% have provided employment protection which assures the workplace integrity and prevents any discrimation against any bias.



Conclusion:

This data exploration project gives a clear insight on the diversity and inclusion around us. This has been helpful to find the answers to the questions that were posed in the beginning.

Homosexuality and Gender Sciences has been an ever developing and debatable topic. All this data exploration gives us a sense of the vulnerability of the community and how the basic human rights are still missing for a particular set of the community. Also, this gives us the understanding of the areas in the laws and the region around the globe where we need to focus, educate, and spread awareness about these rights and their violations.

Reflection:

This project provides a detailed experience in developing techniques to study and analyze vast data in various formats and sources. It has provided me with skills to link various data sources together and make use of them using wrangling techniques. It has helped me brush up my skills in R programming and Tableau. I was introduced to new libraries and tools to tackle my problems.

Though I was able to achieve my desired outputs I feel, the dataset could have been more diverse. Economic and Literacy data of the countries could have been used in this project to support my results and findings. Apart from this data cleaning techniques could have been more programmatically developed.

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