EGIM08 - Coursework 1

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1 Goal

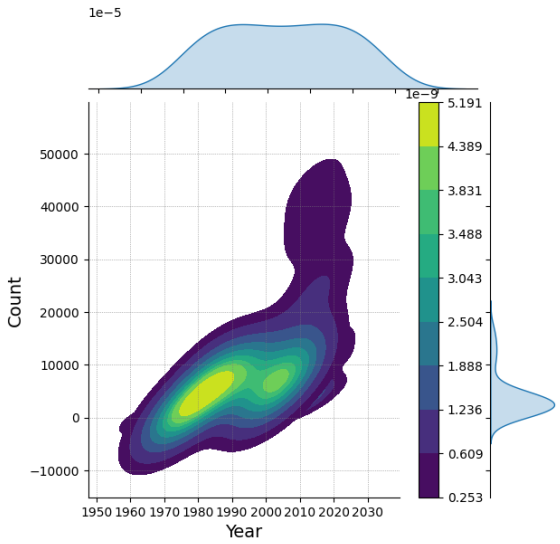

Figure 1: Illustration of Highest death toll faced by Middle Eastern countries

This visualization aims to show how the Terrorism Density, a measure of the frequency and fatality of terrorism incidents, has changed over the years. This density estimate is combinational quantity consisting of frequency of Terrorism Incidents and Fatality of theses incidents which is the Death Toll

2 Insights

The joint plot in the Figure 1 describes the Terrorism Density estimate progressing over the years. This density estimate is a quantity comprised of two attributes which is frequency of Terrorism Incidents and Fatality of theses incidents which is the Death Toll from this Terrorism incident, which combines to form a density estimate to give as sense of how terrorism has been progressing and remained silent for very few years.

3 Data Abstraction

- Dataset Type : Tabular Data - Comma separated Value File
- Items: Each Item is a terror event consisting of data related to information of Terrorism event
- Attributes: For the below visualization of Terrorism density estimate over the years, a merged data-frame consisting of Total terror incidents frequency which is a quantitative attribute type and Total Killed which is again a quantitative attribute are computed and plotted against the Years which is sequential attribute type on the x axis.

4 Task abstraction

- **Marks**: Contour Lines
  Indicates the density growth of density estimate over each channel
- **Channels**: Colorbars
  Indicates the intensity of Density estimate. More the number of incidents and death toll, more is the intensity of the color-bar. Color-bar is indicated to utilize for better analysis.
- **Users**: General public, researcher, journalist, and policy maker.
- **Actions** :
  High level → Present the Data
  Mid Level → Browse the Data
  Low Level → Compare the Data
- Sparse incidents and low fatalities from 1960s to 1980s, continuing into early 2000s.
- Significant rise in incidents and fatalities post-2000, notably after 9/11 attacks.
- Some isolated points contribute to density despite representing fewer incidents.
- Reflects escalated terrorism landscape from 2000s onwards.
- **Target**: Dependency: → Observation hints at a direct relationship between incident frequency and death tolls, crucial in understanding terrorism dynamics.

5 Additional Data source

No additional data source has been utilized except the Input Data file from the Kaggle Website
Dataset : Global Terrorism Dataset
Link : https://www.kaggle.com/datasets/START-UMD/gtd

PEER FEEDBACK - From 2151463 to 2337862

Goals and insights: 40% - *Unclear description of the goals or insights. Lack of correspondence between both.*

1. Your goal is specific, concise, and clear. However, your insights lack any real substance or actual insight from visualization. You have only described your goal in more detail in the insight section.

Data abstraction: 90% - *The description completely corresponds to the data and the vis. Description of dataset and data types included and clearly explained.*

1. A clear strength of your report, you have explained the Dataset type with items and attributes. All the necessary details are present, however, not in sufficient depth, for example, you could have elaborated on what each attribute represents in the dataset.

Task abstraction: 70% - *Task abstractions are described in detail with some flaws or misunderstandings of the task abstractions. Description of marks and channels*

1. There is a misunderstanding of channels used in the plot.

2. Your descriptions lack crucial details about actions a user can perform. For example, you could have expanded on the actions used to show what high, mid and low level actions mean in this context.

3. Description of Marks, Users and Target is given in sufficient detail.

Image of the visualization: 60% - *The image is of appropriate quality, but it is unclear how the stated insights could be drawn from the vis.*

1. This is a probability density plot; it is unclear what probabilities are being drawn from this graph. Furthermore, dataset only includes incidents from 1970 to 2017, however due to type of channel selected, the contour lines dip below 1960s and go over high 2020s. This may mislead a user into thinking something that the visualization is not aiming to present.

2. A bar chart may have been more appropriate to use in this scenario.

3. Though the Horizontal and vertical channel ticks are clearly visible and well labelled, the visual appears to be too constricted in size; furthermore, it is missing a title.

4. Quality of the visualization is excellent, sharp with beautiful color gradients.