Chicago Crime Analysis Dashboard

Using a **Martini Glass Hybrid Structure** and following the path of Author-Driven Insights to Reader-Driven Exploration of Chicago's Crime Trends and Arrest Rates for Domestic vs. Non-Domestic Incidents.

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# 1.Data Sources, Dashboard, and Resources

* **Narrative Visualization is hosted in git public repository** [**here**](https://preethiv07.github.io/CS416-Data-Visualization-FinalProject/)

\*Dataset: The data reflects reported incidents of crime that have occurred in the City of Chicago over the past year. Data is extracted from the Chicago Police Department's CLEAR (Citizen Law Enforcement Analysis and Reporting) system.

* Data is obtained from [data.gov](http://data.gov/) site [here](https://catalog.data.gov/dataset/crimes-one-year-prior-to-present/resource/e3a0a89d-cab5-4280-b6a5-20a1781139c3)
* Additional processing and summarization conducted for visualization. Processed dataset is located [here](https://github.com/preethiv07/CS416-Data-Visualization-FinalProject/tree/main/data)
* Additional details about the dataset can be obtained [here](https://catalog.data.gov/dataset/crimes-one-year-prior-to-present)

# 2.Messasing:

What is the message you are trying to communicate with the narrative visualization?

The message I'm conveying with the narrative visualization is that

* Chicago crime trends are on the rise in 2024 for both domestic and non-domestic incidents. *(illustrated through guided charts showing the trend of each crime type)*
* Despite non-domestic crimes being four times more frequent compared to domestic crimes, the **arrest percentage is higher for domestic crimes**.

*(illustrated through interactive comparative chart of arrest %, highlighting the significant disparity in arrest rates and details of demand using tooltips)*

# 3.narrative Structure

Which structure was your narrative visualization designed to follow?

* Martini Glass Hybrid Structure is used.

How does your narrative visualization follow that structure?

Initial data analysis ***revealed intriguing patterns in crime incidents by nature*** (Domestic vs. Non-Domestic) and their corresponding arrest rates.

I aim to share these insights with readers using a streamlined, author-led approach through message-focused, non-interactive scenes (Scenes 1 & 2).

Subsequently, an interactive scene (Scene 3) which will enable users to explore these observations further.

Also, considering the volume of data might be too big to present it to users directly, Martini glass structure is used.

# 3.visual Structure

What visual structure is used for each scene?

How does it ensure the viewer can understand the data and navigate the scene?

How does it highlight to urge the viewer to focus on the important parts of the data in each scene?

How does it help the viewer transition to other scenes, to understand how the data connects to the data in other scenes?

# 4.scenes

What are the scenes of your narrative visualization?

three scenes. Those three scenes can simply highlight different details or different data from the same chart.

How are the scenes ordered, and why?

Free-form user interaction can be as simple as tooltip popups that allow the user to see more information on data items

# 5.annotations

What template was followed for the annotations, and why that template?

How are the annotations used to support the messaging?

‘Do the annotations change within a single scene, and if so, how and why

# 6.parameters

What are the parameters of the narrative visualization?

What are the states of the narrative visualization?

How are the parameters used to define the state and each scene?

# 7.triggers

What are the triggers that connect user actions to changes of state in the narrative visualization?

What affordances are provided to the user to communicate to them what options are available to them in the narrative visualization?

# 8.references

**Review Criteria**

* An essay will be required and will be submitted along with the URL of the narrative visualization. This essay is an important piece of the assignment as it is used for you to communicate your understanding of the concepts of narrative visualization and how they apply to the one you created.
* The essay should contain the following sections.
* **Messaging.** What is the message you are trying to communicate with the narrative visualization?
* **Narrative Structure.** Which structure was your narrative visualization designed to follow (martini glass, interactive slide show or drop-down story)? How does your narrative visualization follow that structure? (All of these structures can include the opportunity to "drill-down" and explore. The difference is where that opportunity happens in the structure.)
* **Visual Structure.** What visual structure is used for each scene? How does it ensure the viewer can understand the data and navigate the scene? How does it highlight to urge the viewer to focus on the important parts of the data in each scene? How does it help the viewer transition to other scenes, to understand how the data connects to the data in other scenes?
* **Scenes.** What are the scenes of your narrative visualization? How are the scenes ordered, and why
* **Annotations.** What template was followed for the annotations, and why that template? How are the annotations used to support the messaging? Do the annotations change within a single scene, and if so, how and why
* **Parameters.** What are the parameters of the narrative visualization? What are the states of the narrative visualization? How are the parameters used to define the state and each scene?
* **Triggers.** What are the triggers that connect user actions to changes of state in the narrative visualization? What affordances are provided to the user to communicate to them what options are available to them in the narrative visualization?