**Create a Narrative Visualization Project**

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**The Message**

The message of this narrative visualization project is to show you how the U.S. number of Olympics medals changes overtime. This visualization also aims to show the number of medals is not an effective measurement on Olympics popularity in the USA. Even with increased number of medals received, the Olympics actually decreased in popularity overtime.

**Narrative Structure**

The narrative visualization structure that I chose was an interactive slide show. For the first 2 scene of the visualization, the above message is delivered directly to the user and only a few interactions are allowed. These interactions are links to many potentially interesting articles if the users decide to dive deep on his own over the internet. Nevertheless, these links are extra information and are not required.

The third scene allows the users to drill down into the visualization by providing tooltip popups for extra information and several buttons that the user can activate to provide annotations that help supporting several points made in the message.

**Visual Structure**

The first 2 scenes try to convey the message to the users by providing context and lead the users toward the conclusions that the creator want to transfer across. The information is conveyed mostly by text and links to external resources if the users want to do a deep dive into the subject matters. The goal for the first 2 scenes is to make the message clear with enough context so that the user can effectively navigate the third scene, which is where most user interactions will be in.

In this 3rd scene, the user will be presented with a chart that shows the number of medals that the USA received each 5 years since the inception of the Olympics. There are many conclusions that one can draw from this visualization. In this chart, the most important conclusions are highlighted with annotations. One of the obvious conclusions is that we have been trending up in our medals since the inception of Olympics. However, another important point to get across here is the event popularity among Americans has been on its downward trend since World War 2, even with a significant uptick in the number of medals the USA has received over the year. The Olympics, nowadays, is nothing but evening entertainment. Nobody goes out and celebrate it like a national event anymore. Moreover, the number of sports in the Olympics has been increased significantly since its inception. In 1896 Summer Olympics, there were only 9 sports in 43 events. Nowadays, in 2022 Summer Olympics, there are almost 50+ sports that are currently available and more are being added every few years. Thus, the significant increase in medals does not mean that Olympics has become popular among adults in the US.

**Scenes**

We have a total of 3 scenes for this visualization. The first 2 scenes, like explained in the previous section, are used to convey the message across to the users. The format of these 2 scenes is mostly text with some links to different external resources that users can use to gain more context. However, these first 2 scenes will provide ample context so that the users can effectively use the third scene to explore the data further.

The third scene will contain a chart with interactive elements so that the users can drill-down into the data features. This third scene has 3 different states that highlight the conclusions mentioned in the previous section.

**Annotations**

I use the d3-annotation package to create several annotations that accompanied with each trigger in the 3rd scene. Whenever a trigger is activated, its set of annotations are displayed to the user to support the conclusions that we mentioned in the visual structure section of this document. The template that I used for all annotations is d3.annotationLabel. The main reason for this selection is based on how clear and visible the “arrow” points to the area of interest. Each set of annotations help guide the user toward the visual elements that indicate the conclusion for that particular set. The annotations are changed depending on which trigger get activated.

**Parameters**

In the third scene, we have several parameters to control the state of the narrative visualization. Each of the state highlights a different conclusion. There are a total of 3 states for this 3rd scene. Accordingly, there are 3 parameters used in this scene. Each of these 3 parameters is attached to a single button with a clear label. Every time you click on once, a different conclusion and its set of annotations will show on screen to provide the users with more information/conclusion.

**Triggers**

The triggers in this case are the 3 buttons that will be shown on screen. Clicking on one of these buttons will initiate the change of the state in the narrative visualization. The buttons are obvious to the user with clear wordings so that anyone, who is exploring the data, will be able to detected them immediately. Whenever the user is ready, he/she can click on one of these buttons and the chart will take care of the rest.

By making these triggers obvious, the users are presented with a better user experience, in which they do not need to find the elements that are interactable.