**Global Climate Change**

**Messaging**

This visualization is designed to compare important factors that impacts the global climate change vs the actual increase. The data is based on NASA models to predict the temperature changes if only “one of the factors were to exist” and disregarding other factors. The single factor modeled temperatures are compared against the actual temperature changes to determine correlation.

The factors being discussed are:

* Volcanic
* Orbital
* Solar
* Aerosol
* Green house

At the end of visualization, the user can clearly conclude the most important factor that’s causing global warming.

**Narrative Structure**

The visualization follows the *martini glass format*. The visualization goes through 7 scenes in one order initially without user exploration. At the end the user is given an option to explore the visualization by selecting the factors individually via check boxes and comparing their effects via line graphs.

**Visual Structure:**

The visualization uses line graphs that are accumulated on the graph with same scale and axis as user steps through the scene by pressing next button. The accumulative structure helps user compare the effect of each factor. At the end the conclusion is highlighted.

**Scenes:**

There are 7 scenes in the visualization. The first scene is only text description to motivate the problem. Next 6 scenes in the visualization add a line graph for the contributing factor and contrasting against the actual temp. increase with common axis. The scenes for non-contributing factors is presented first. The line graph for primary factor is presented on last scene to guide the user naturally reach conclusion at the end along with option for user to explore via checkboxes.

**Annotation**

Supporting annotation is added to a rectangular area in the blank area of svg area. The text is replaced in the same rectangle as users moves through scene.

**Parameters**

The parameters of visualization is the model type (volcanic model, orbital model etc). As this parameter changes a new line graph is added for the model.

**Triggers**

The triggers are the two buttons start, reset and checkboxes . At the start of visualization the button name is “start”. After user presses it once the button name changes to “next” to guide user on the further action. At the end the user is presented with option to select check boxes for self-exploration. The affordance are on the checkboxes which appear as already checked at the end of the visualization. This indicates to user that they can be unchecked and a sub selection of parameters can be made.