

HW 5: Interaction Creation

My third design from Homework 4 has a few added interactions:

- 1) Going from the main scatterplot, a user can hover over a circle or select it (by clicking) in order to view specific information in a separate workspace or column about the selected country that circle represents; for instance, the continent in which the country is located, the percentage of seats in Parliament held by women, the Gender Inequality Index (GII), and perhaps additional information not present in the dataset (i.e. population, GDP, etc.). This interaction would be classified as selection and organization, since one area would maintain the original scatterplot, while another would be devoted to specifics about the country. This would allow users to get more detailed information about given countries in the chart, and could answer questions such as, “are there other country variables at play that affect GII?”
- 2) A user can also select the “Human Development” aspect of the main scatterplot’s key in order to change the main visualization from a scatterplot to a bar chart sorted by human development (as the categorical x-variable). Like the main scatterplot, the countries remain organized by continent according to color, and the user can select a country from the bar chart in order to see its overview in a separate section of the page. This interaction would be classified as, again, selection and also as sorting, since the data is being reorganized around Human Development rather than the xy-axes in the scatterplot. This would allow users to answer the questions like, “which

continents have the most countries with a high human development?” or “how many countries have high vs. low human development?”

- 3) Finally, a user can select a given continent from the “Continent” key of the main scatterplot in order to display just countries in that continent on the plot. Like the original scatterplot, the user can still select a circle in order to view the country’s details. This interaction makes use of selection and also filtering, since only countries from the selected continent are shown while the rest are filtered out. This would help answer questions such as, “how do countries within North America compare with respect to GII/percentage of seats in Parliament occupied by women?” It would also help visualize the human development of specific continents, since human development is encoded using color density, and this encoding would still apply to this newly filtered visualization.