# User Guide of the Shiny App of Geographical Visualization and Analytical analysis of Human Development Level

### Indicator Map

This indicator map provides an overview of the world to users. 3 most important indicators are provided in this map, namely, Human Development Index, Gender Development Index and Gender Inequality Index. In the lower-right corner, there is a control option, which can be used to control which map to be shown.

In the left panel, there are 3 mini-bar charts to show the distribution of 3 indicators in the world. And the slider bar controls the year of which the data we want to see. Once the input of the year is changed, the map will be re-plotted. This process will last for about 30 seconds.

The main map is designed as a choropleth map and coloured with blue. The darker the colour, the higher the value it stands for.

There is a mini-map in the upper right corner. In this map, the user can select a certain country of his/her interest and then the view of the map will “fly” to the country which is chosen by the user. And the summarized information of this country in the selected year will appear under the mini-map.

Note: Once open this Shiny app, it will take about 30 seconds to finish the calculation of the page indicator map. And re-plotting this map requires equal time length.

Scatter Plot

5 inputs can are controlled by the user in the side panel, namely, X axis, Y axis, the size and the color. A template has been provided.

Indexes

Human Development Index is composited of 4 components: Life Expectancy, Mean of Schooling Year, Expected Schooling Year and Gross National Income. In this page, the user can dig into the Human Development Index and explore more details. In the control panel, the user can choose a list of countries and a time-period. In the main panel, 5 tabs are provided. User can choose one of them to see the change of each aspect individually.

Correlation

The design of this page is to use the heatmap to reveal the correlation across a variety of indicators. For countries, user can choose any number of countries (can be all countries) to draw a heatmap. The choice of indexes is also flexible. In the slider bar, the input of year and number of clusters are changeable. Also, we can choose the scale, cluster method, distribution method and seriate method.

Data

In this page, the overview of the whole dataset is placed. Users can download the dataset as a CSV format file by clicking the button “Download as CSV”.