

Happiness Index Analysis

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Messaging

This narrative visualization will analyze the World Happiness Report in 2019. The topics are including the correlation among six factors (gdp, social support, health, freedom, generosity, and perceptions), and a country's happiness, happiest countries and dominant factors, and how is happiness distributed in the world by regions.

Narrative Structure

This narrative visualization follows the structure of an interactive slideshow allowing the user to traverse the slides by up and down directions. There is an author directed path through the visualization of world happiness analysis. In the slide of "World Happiness", audience is able to explore different view by six factors.

Visual Structure

Theme consistency: The layouts, charts, background colors are consistent throughout this visualization to help improve users' experience and understanding about the data and the whole story.

Page navigation: Audience can navigate pages by up and down buttons on the keyboard. There are six navigation dots on the right side of each page with title. Hence, audience can also click each dot to go the page directly.

Chart comprehension: There are comprehensive XAxis, YAxis, legends, annotations pointing to important data, distinguished colors, tooltips, descriptions to help audience better understand the data.

Sub-scenes transition: On the world happiness slide, there are six buttons are provided in order to trigger sub-scene transition happen. And during each transition, the trending line are slowly animated to help audience understand how each sub-scene are changing and connected.

Scenes

There are six scenes including the opening and closing scenes in this visualization.

- First scene: opening scene
- Second scene: Introduction scene
- Third scene: An overview scene where there is a world map projection on the left side and scatter plots of six factors on the right side. The six sub-scenes of factors can be explored by clicking corresponding buttons below the chart.

- Fourth scene: Happiness index view by 10 regions. There is an average happiness score for each region. Audience can read the story from bar chart and the description below the chart.
- Fifth scene: Top 20 happiest countries are presented in a stacked bar chart. It shows weight of each factor. Two stories are telling the audience. One is gdp, social, and healthy life are the three biggest factors dominating the happiness index. Another one is that money cannot buy happiness. Costa Rica ranks top 20 with low economy.
- Sixth scene: the closing scene includes references and resources.

Annotations

In the “Top 20 Happiest Countries” slide, two annotations are used. One is using note + connector + rectangle by d3 to show that gdp, social support and health are the three biggest factors for happiness index. Another one is using note + connector to point out a top happy country with low economy. In this slide, both of annotations won’t change because of the static view.

Parameters

The total 6 slide numbers are the parameters controlling each slide. The state is each scene. Besides, in the “World Happiness” slide, mouseover country on the world map will filter in and highlight the spot on the right scatter chart. And there are six buttons below the scatter chart representing six parameters. Clicking each of them will show the scatter plot state of each factor.

Triggers

“Up” and “Down” button from the keyboard will trigger page navigation.

In the “world Happiness” slide, each button of six factors will trigger its scatter plot sub-scene. Mouseover on the country on the world map will trigger a series events on the right side scatter chart including corresponding spot highlight, xaxis and yaxis value showing, and country name showing.