The Complete history of bids of Olympic Games

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Repository URL: https://github.com/VanillaCola/OlympicsBids
Project URL: https://vanillacola.github.io/OlympicsBids/

Overview and Motivation

The summer Olympic Game or the Game of the Olympiad is the largest international multi-sport event. The first summer Olympic Game was held in 1896 at Athens, Greece then hosted by a different city every four years. Hosting an Olympic Game oftentimes requires the host city to build new stadiums, expand mass transit system and renovate the public facilities. All these will bring challenges as well as tremendous development opportunities to the host city, such as creating new jobs, receiving financial investments and attracting global attentions. Due to the benefits of hosting an Olympic Games, the major cities that are interested in hosting the game need to bid for it and rival for the hosting right. For example, 12 major cities around the world bid for the hosting right of 1936 Olympic Game and eventually Berlin, Germany was selected as the host city.

People tend to only pay attention to the host city and the Game itself. For example, everyone knows that Rio hosted the 2016 summer Olympic Game; but probably only few people know that Chicago was also one of the candidate cities that bid for this game. Certainly this bidding process is an essential component of Olympic Games but often time overlooked by many people.

We therefore want to present the data for Olympic Game bid using interactive visualization techniques. This project can help people to have a more comprehensive understanding of the Olympic Game.

The source webpages contain tables that tabulate the candidate city information for each game. However, the table is not interactive and lacks appropriate aggregate information. We will extract the data from the source

Overview and Motivation

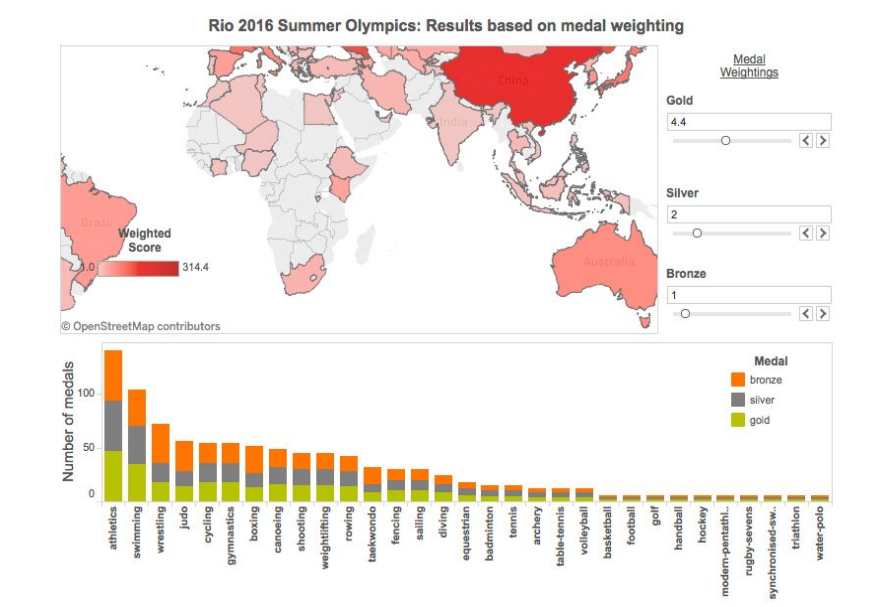
webpages and visualize it using interactive techniques, including map and stack bar chart. For each summer Olympic Game, our design will interactively display the candidate city names, exhibit their geographic locations on the map, how many times they participated in the bids and how many times they won the hosting right, as well as some other well-designed aggregate information. We will also color the cities based on their continental location and our implementation might contain the option to zoom in to show each individual continent.

Related Work

We searched online for the related work in the hope of getting some inspirations. We came across the following well-designed visualizations and believed that some of their visual elements are effective so we plan to apply similar techniques in our implementation.

Related Work

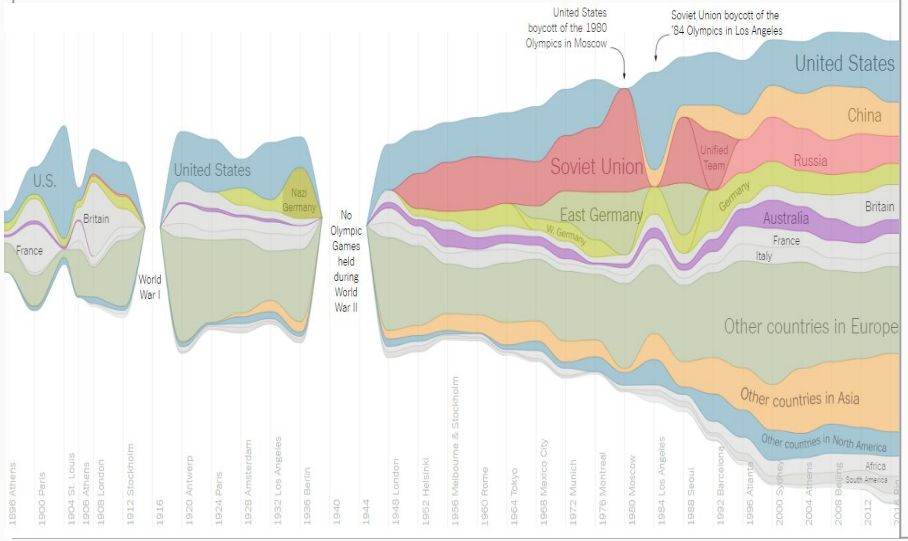
1. https://srcole.github.io/2016/08/17/olympics/



This work attempts to visualize the medal distribution among countries. They used the world map to illustrate the geographic location of different countries. Our data have many cities and the best way to visualize their geographic data will also be using the map. In the bottom panel they used a stack chart to show the medal distribution. It is concise yet conveying information effectively. We will also consider using such chart in our design for showing some aggregate information.

Related Work

2.http://www.nytimes.com/interactive/2016/08/08/sports/olympics/history-olympic-dominance-charts.html



This work gives us idea of how to visualize the data using a series of time points. We will attempt to keep track of how the Olympic Games candidate cities change over time and we can certainly utilize the similar technique in our bar chart.

Questions?

Initially we want to build a project that will help answer the following questions:

1. How many cities participated the bids for each summer Olympic Game and what/where are they?
2. For each city that participated in the bids for Olympic Game, has it ever won the hosting right? How many times did it fail before won the right to host the game? What is the success rate?
3. What is the geographic distribution of the candidate cities? Which continent has more candidate cities?

These questions are the key questions to answer and remain as our highest priorities. Our visual implementations will focus on these questions and we will keep polishing our designs in order to provide the most clear answers. For example, to answer the first question “How many cities participated the bids for each summer Olympic Game and what/where are they?”. Our initial design is to show the geographic locations of the candidate city when the mouse hovers over the corresponding rectangle in the bar chart. However, the user can only see the location information of a single city. To better illustrate the

Questions?

overall information of all the candidate cities of each year, we plan to add an interactive feature which will highlight all the candidate cities of the selected year when the mouse hovers over the year on the x-axis.

In our initial design we proposed to utilize a pie chart to show the participation ratio between different continents. What if the users want to compare the participation history between different cities? Or between different countries?
We therefore have planned to add new features that will answer these two questions. Our current plan is to add a table that shows the participation history of selected cities and/or countries.

Data

Our raw data were taken from wikipedia:

- https://en.wikipedia.org/wiki/List_of_bids_for_the_Summer_Olympics
  The data contained therein are presented as some HTML tables. We used Google Spreadsheet [1] to scrape the tabulated data. The cities coordinates hasn't been provided from the original data, we appended each candidate city with an associated longitude and latitude.

Our map data were taken from the following source:

- https://gist.githubusercontent.com/abenrob/787723ca91772591b47e/raw/8a7f176072d508218e120773943b595c998991be/world-50m.json, we directly downloaded it and load the data as part of our implementation.

Exploratory Data Analysis

In our stacked bar chart, each rectangle in the bar chart represents a candidate city that participated the competition in a particular year. In our initial design every rectangle has the same shape and size since we only considered to display cities but this will make it difficult to differentiate the host city and other candidate cities. We did categorize the cities into different color based on the continent where they belong; however, this does not reflect the winning city/continent in that particular year. We therefore decided to distinguish the host city by scaling up the size of the rectangle for the host city in our later design and this will certainly help the users gain more insights about the data.

Design Evaluation

What are the different visualizations you considered? Justify the design decisions you made using the perceptual and design principles you learned in the course. Did you deviate from your proposal?

To be completed.

Implementation

Describe the intent and functionality of the interactive visualizations you implemented. Provide clear and well-referenced images showing the key design and interaction elements.

1. Hovering on rectangles from the map and bar chart will generate the specific information of this particular city. For example, how many time did this city participate for hosting Olympic Games?
2. Clicking on the rectangles on the map will pop-up a summary result of this city, including which year this city participated in bidding and which year this city won the bid?

We will provide more details in our final version of Process Book.

Evaluation

What did you learn about the data by using your visualizations? How did you answer your questions? How well does your visualization work, and how could you further improve it?

To be completed. We will provide more details in our final version of Process Book.

Thanks!