

Data Visualisation 2 Report

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Author Note

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Word Count: 939

Visualisation Website: https://edenfrey.github.io/FIT3179_Visualisation2_Globe500

Domain

Description

According to Bloomberg, the domain is the top 500 wealthiest people on earth (2022, <https://www.bloomberg.com/billionaires/>). The website depicts the person's name, country, net worth, and industry they are involved. I have performed web scraping using Python to extract the information needed and committed aggregation to the data set to achieve what I wish to visualise.

Why?

The reason I chose this domain is that I have been interested in finding out who are the top richest people on Earth and in which countries and industries are they involved and thus the reason I chose this data set.

Who?

This visualisation is for the general population who is interested in the topic as I am and wish to get a better overview of the data and information. This information is crucial as long as there is an economy and there are people who are interested in this topic.

Data

Description

The data comes from Bloomberg's website "Bloomberg Billionaires Index". The data set contains the top 500 richest people on Earth (with publicly available data), their net worths, industry, and country of origin.

Sources and Authors

This data has been extracted from the website on October 13th 2022 using web-scraping methods using Python. Bloomberg's source for such data is using their own data collection team and reportings and they strive to provide the most transparency possible. Upon web-scraping the data, I performed aggregation to the data set using Python as well to pre-compute information.

Relevancy

This data set will likely be timeless and always relevant as long as there is an economy and people interested in who the top 500 people are and in what industry they are involved. This data set is always updated daily and I retrieved the data as recent as the 13th of October 2022.

The Visualisation and Design

In this section, I will further explain my visualisation in the different segments. Do note, that the visualisation suits best with screen sizes of at least 1920x1080. The reason is that the website requires high amounts of pixels to showcase the charts and data. You can find screenshots of the website at the end of this section.

Why and How: The Idioms and Features

Global-View

Firstly, to showcase the location and count of the richest 500 people in countries I used a geographical map. This allows the user to see which countries do not have billionaires within the top 500 and which do and how many they have.

Top 10 Rankings

Next, to showcase the top 10 richest people I used a horizontal bar chart in sorted order to showcase the difference in net worth between the richest people. Alongside that, I used colours to differentiate between the different industries. Furthermore, I have included a select option for users to filter by industries. This can help viewers have a clear view of who is on top and what their net worth is and in what industry are they.

Country Net Worth Total vs Average

It is easy to assume that the total net worth means that the country is the best. The same can be said with the average net worth. With the scatter plot, users can interpret the data and come to a conclusion that best suits their definition of “best”. To further increase the effectiveness of the chart, size channels are used to depict the count of billionaires in each country. Users can filter the results based on the selected minimum and maximum total net worth. To read the tinier results, using the mouse wheel, users can zoom in and out.

Industry Net Worth

Finally, the portions in which the industries dominate within the top 500 richest people are depicted with a doughnut chart. With this simple chart, we can see the sheer sizes of the industries against each other.

Design Choices

Using a “presentation” format where users will scroll through the various sections (rather than have a big page full of charts (comic style), users will be guided through a more cohesive & coherent story telling as everything is shown in a linear format.

Layout

Firstly, I have sectioned the various sub-topics into their own segment of the website. Hence, the need for snapping of segments. The reason is that I want the user to focus on the segment alone and then move on to the next. There are two main ways I have depicted the charts: Text on the left, Chart on the right & Chart on the top, and Text on the bottom. If the chart is on the right-hand side, I have given it 70% of the screen to render the chart and the remaining 30% is for text.

Colour

For categories (industry) I have opted for Tableau’s 20-colour scheme as it is a darker theme that contrasts well with the background colour. As far as text is concerned, they remain black-coloured to provide contrast.

Typography

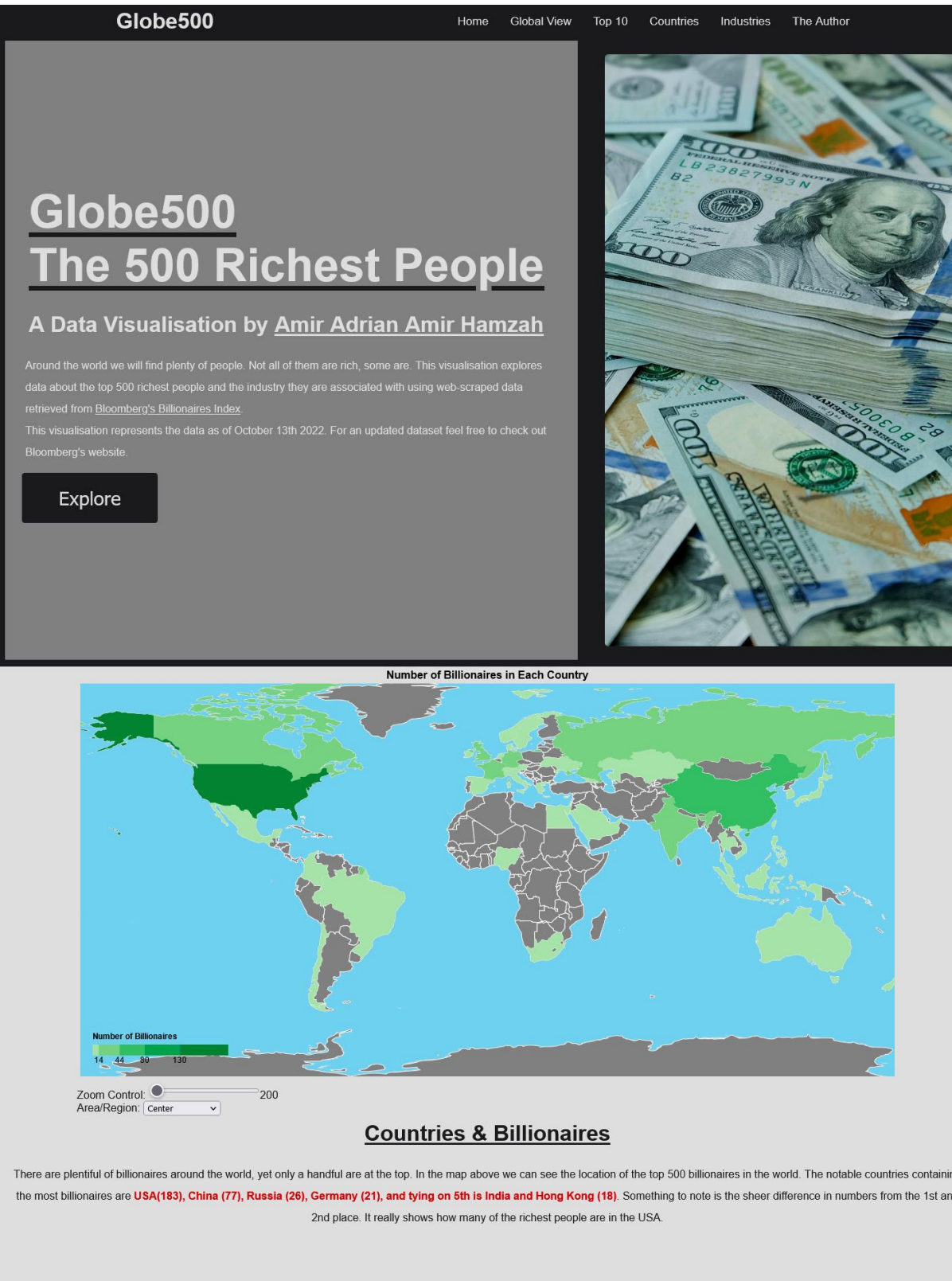
I have opted for a simple readable font “Sans Serif” as it is a clean font and minimalistic which contrasts well with the intricate charts. I underline and bolded the headings to emphasize the topic and sub-topics.

Storytelling

Annotations are used to point out key points of interest and data of interest mentioned in the text. Other than annotations on the charts to provide quick information and to point out

certain points of interest, I have added the navigation bar to help users jump to sections of interest. Furthermore, the feature of snapping to sections allows users to know which section they are in and not feel congested. We start off with simple information which then gradually grows into more intricate data.

Website Screenshots

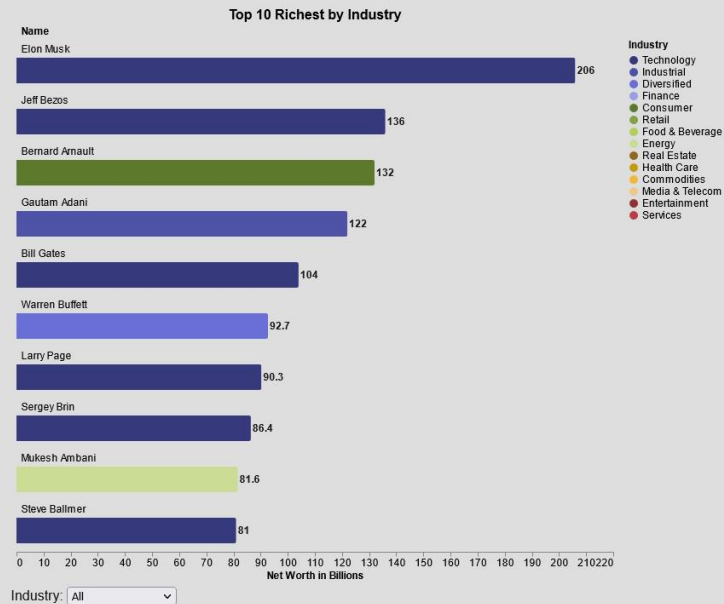


The Top by Industry

As of October 13 2022, majority of the richest 10 people are in the technology industry. The various people include: **Elon Musk**, **Jeff Bezos**, and **Bill Gates**.

However, there are a few notable names within the top 10 in different industries such as Warren Buffet who is in the diversified industry.

Note: Use the selector below the chart to filter by industry.

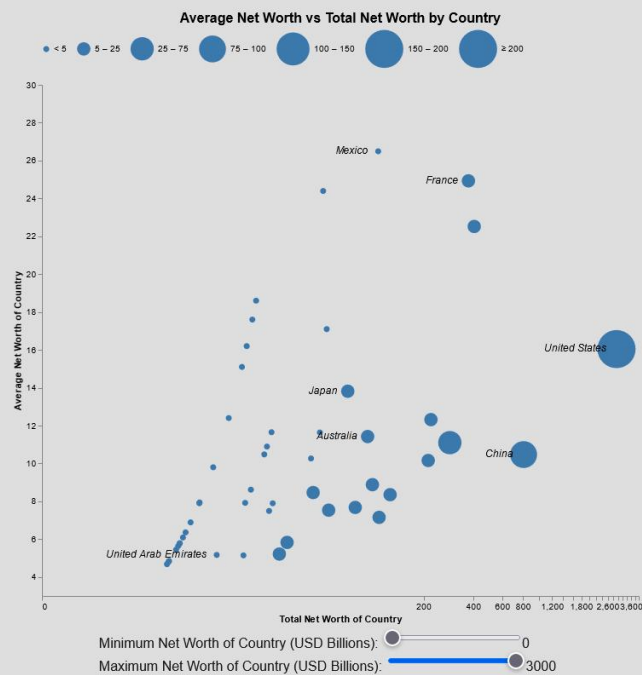


Countries Net Worth: Total vs Average

As we can see in the following scatter plot, we see that the **United States of America has the highest total net worth** when it comes to the top 500 but has an "in-the-middle" average. This can be due to the fact that the USA also has the highest percentage of billionaires.

The highest average can be found in **Mexico** which only has 4 billionaires within the top 500. Mexico however has only an "in-the-middle" total.

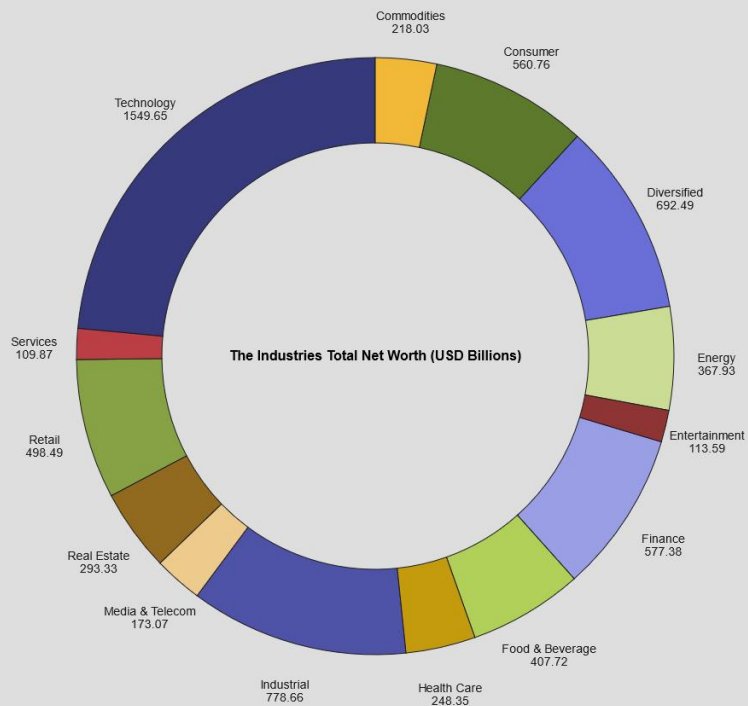
Note: Use the sliders at the bottom to filter the net worth of the countries and use your mouse wheel to zoom in and out.



Industries: The Numbers

Finally, to answer the question: Which industry is best? There are various interpretations of what is "best". We are simply taking the total net worth of the top 500 richest people in each industry. Thus the following chart.

Technology, industrial, diversified, and finance are the top industries with the highest net worths but do note that technology also has 71 candidates within the top 500 and can potentially lead to a lower average net worth.



About: Amir Adrian Amir Hamzah

Computer & Data Scientist @ Monash University

Currently in his final year of pursuing his Bachelor's degree in computer science and data science at Monash University Malaysia. He is currently interested in various fields: Machine Learning, Automation, Web Development, Data Analysis, and Cyber Security.

Other hobbies and interests include: Video Content Creation (Script writing, videography, video editing) and Sports (Swimming, Volleyball, Basketball)

Check out his portfolio [here](#).



References

Bloomberg. (2022). *Bloomberg Billionaires Index*. Bloomberg.com. Retrieved October 13, 2022, from <https://www.bloomberg.com/billionaires/>