

Tool Evaluation

I decided to analyze these three online tools-

- RAWGraphs
- Plotly Chart Studio
- Datawrapper

I decided to choose these tools because I have some experience with plotly and RAWGraphs and I found them very useful and simple in data visualization

RAWGraphs: RAWGraphs is an open-source data visualization framework built with the goal of making the visual representation of complex data easy. The positive attributes of RAWGraphs are that it lets the user export every visualization as PNG, SVG, or PDF. The graphical interface is user friendly and enables the user to add and drop attributes. Demerits of RAWGraphs unable to handle large datasets. The graphs created in RAWGraphs lack some features and are not dynamic.

Pros

- Ease of use, no code required
- Ability to add custom charts

Cons

- Limited graph types available by default, geared toward specialized types
- Adding custom charts requires some coding skills

Datawrapper: Datawrapper is a data compilation and visualization software that simplifies how you can present large numbers of data. Positive attributes about the tools are: very easy to use & give multiple options to upload the files, provides many different options to publish or download your work. One unique merit of the datawrapper was that it provided a colorblind check. Datawrapper visualizations scale to the largest audiences and support even millions of viewers. All our visualizations can update themselves periodically by linking to an external CSV or Google. A negative attribute is that different types of graph options are less.

Pros

- Ease of Use / Simple workflow
- Responsive
- PNG and Embed output (free version)

Cons

- Limited graph options
- Themes are a premium feature
- Free accounts are public

Plotly Chart Studio: It provides a graphical user interface for importing and analyzing data into a grid and using stats tools. Some of the merits of Plotly Chart Studio are the large library of graphs that it provides,

and we can scale effortlessly with a stateless design. But the demerits are that most of the premium graphs are not free. Also, the UI is not user-friendly as compared to other tools such as Datawrapper and RAWGraphs.

Pros

- Easy to create interactive plots
- Complex plots made easy

Cons

- Lack of some common graph types
- More obtuse UI than previously

To summarize, I found **Datawrapper** to be the best tool to work with due to the following reasons-

- Simplicity
- Accessibility
- Can work with large datasets
- Can be used for different visualizations

Usage Pattern

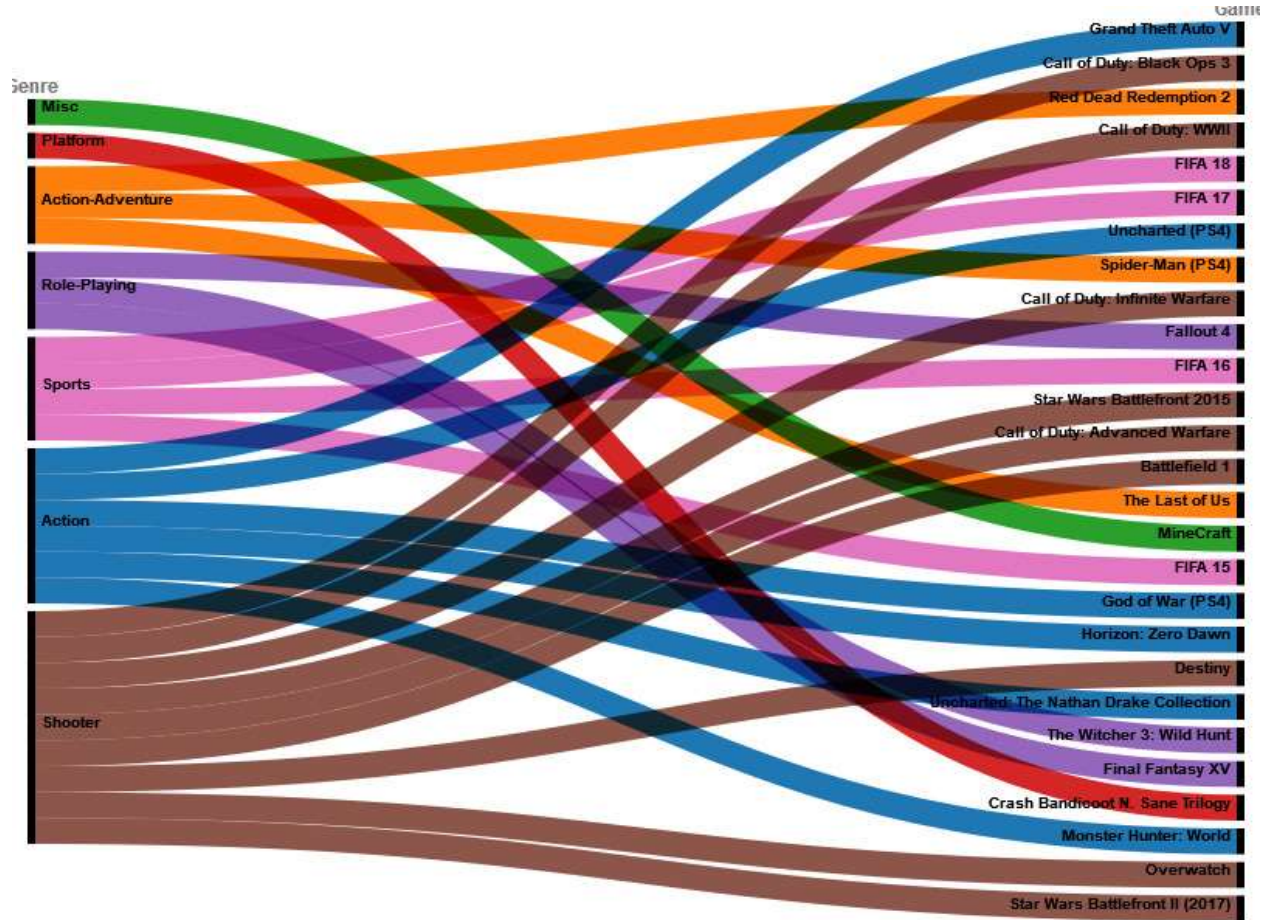
I have chosen RAWGraphs and Datawrapper together. I asked some questions to myself regarding the video games sales data.

- Q1 Which genre are the most famous in gaming?
- Q2 Which publisher had the highest sales globally?
- Q3 How was the video game sales in North America, Europe, Japan, the Rest of the world and globally?
- Q4 Which were the top games in North America?

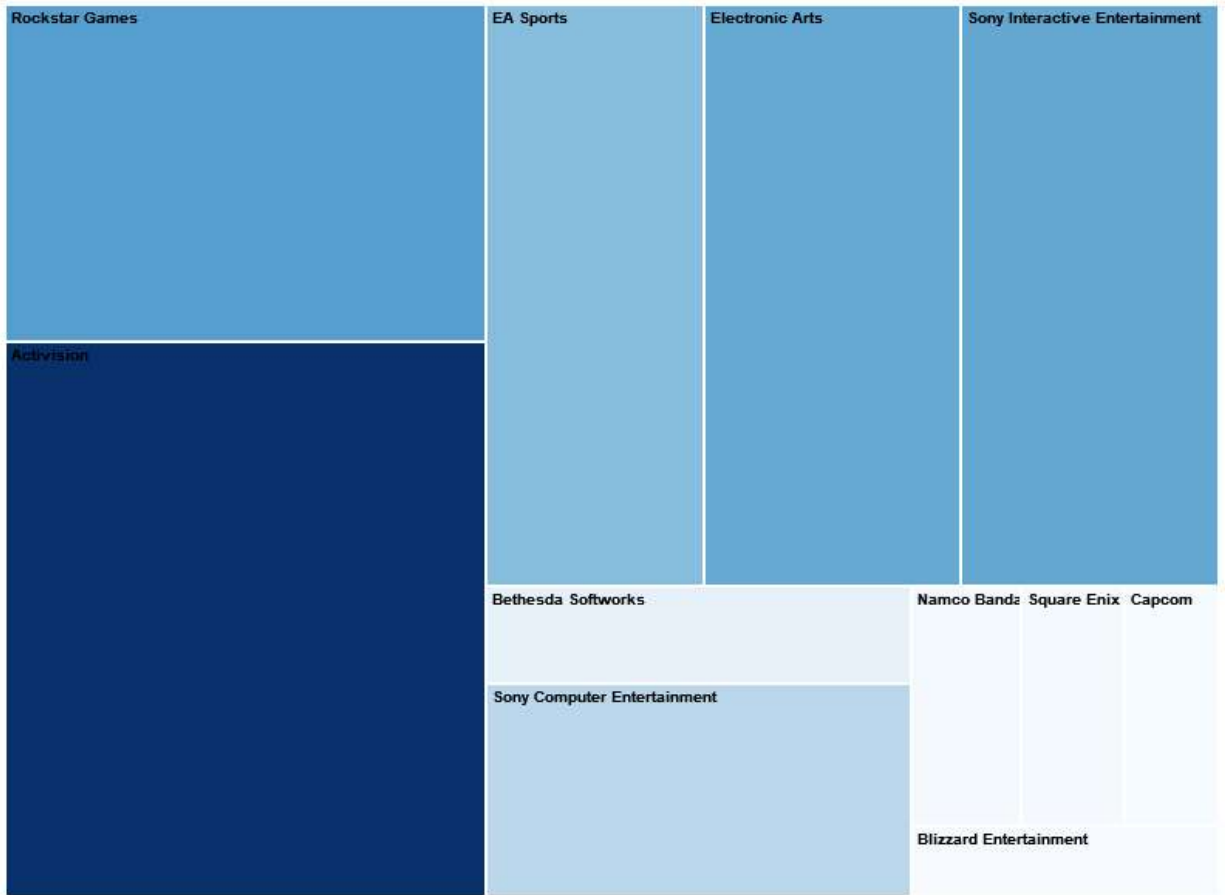
I will use **Alluvial Diagram** in RAWGraphs to get an understanding of the genre and **treemap** to get an idea of the best publishers in terms of sales. Then I will use Datawrapper to figure out how the top games fared in different parts of the world. I will use **bar graphs** to find the best games in North America in terms of sales.

Application

Video Games and Sales



The highest number of bestseller videogames are Action and Shooter games followed by Sports(primarily FIFA). Only Minecraft is a unique genre game amongst the bestsellers.



The top publisher is Activision followed by Rockstar games. Sony and Electronic Arts are major players in the gaming industry.

Video games Sales (In Millions USD)

	North America	Europe	Japan	Rest of World	Global
Grand Theft Auto V	6.06	9.71	0.6	3.02	19.39
Call of Duty: Black Ops 3	6.18	6.05	0.41	2.44	15.09
Red Dead Redemption 2	5.26	6.21	0.21	2.26	13.94
Call of Duty: WWII	4.67	6.21	0.4	2.12	13.4
FIFA 18	1.27	8.64	0.15	1.73	11.8
FIFA 17	1.26	7.95	0.12	1.61	10.94
Uncharted (PS4)	4.49	3.93	0.21	1.7	10.33
Spider-Man (PS4)	3.64	3.39	0.32	1.41	8.76
Call of Duty: Infinite Warfare	3.11	3.83	0.19	1.36	8.48
Fallout 4	2.91	3.97	0.27	1.34	8.48
FIFA 16	1.15	5.77	0.07	1.23	8.22
Star Wars Battlefront 2015	3.31	3.19	0.23	1.3	8.03
Call of Duty: Advanced Warfare	2.84	3.34	0.14	1.22	7.53
Battlefield 1	2.2	3.65	0.29	1.12	7.26
The Last of Us	2.7	2.86	0.11	1.1	6.77
MineCraft	1.89	3.13	0.35	0.96	6.33
FIFA 15	0.83	4.49	0.05	0.94	6.32
God of War (PS4)	2.83	2.17	0.13	1.02	6.15
Horizon: Zero Dawn	2.2	2.43	0.28	0.92	5.82
Destiny	2.53	2.13	0.16	0.94	5.76
Uncharted: The Nathan Drake Collection	2.55	2.11	0.1	0.94	5.7
The Witcher 3: Wild Hunt	1.48	2.82	0.28	0.81	5.39
Final Fantasy XV	1.81	1.53	1.05	0.68	5.07
Crash Bandicoot N. Sane Trilogy	1.09	2.92	0.07	0.74	4.83
Monster Hunter: World	1.03	1.06	2.17	0.42	4.67
Overwatch	1.84	1.8	0.17	0.73	4.54
Star Wars Battlefront II (2017)	1.7	1.99	0.12	0.73	4.53

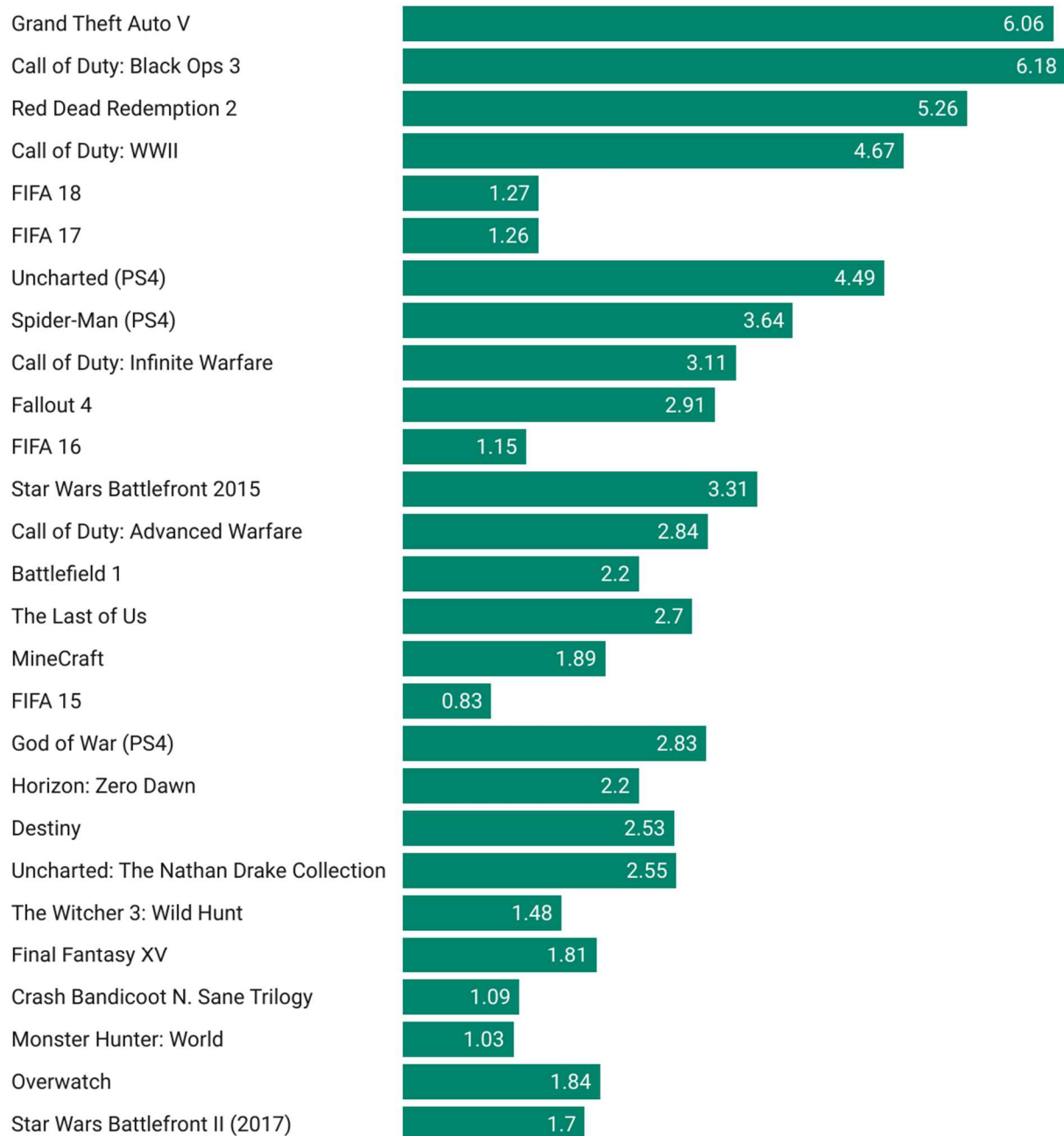
Created with Datawrapper

<https://datawrapper.dwcdn.net/QJ8mw/1/>

GTA Auto V is the bestseller game with 19.39M USD in global sales followed by Call of Duty Black Ops 3 with 15.39M USD in global sales.

Video game Sales(In Millions)

North America



Created with Datawrapper

<https://datawrapper.dwcdn.net/J1QJJ/1/>