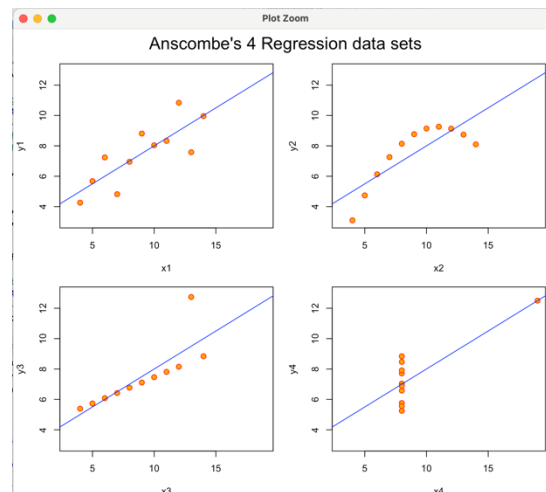


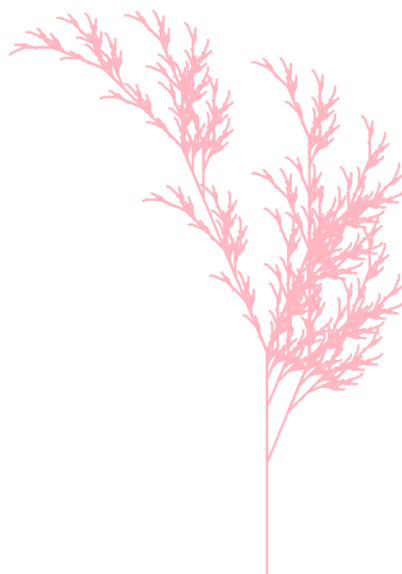
1.

According to the summary of these four groups of data and linear models, they were having very similar consequences. The intercept were all around 3 , slope around 0.5,  $R^2$  around 0.67 , and the F-value of ANOVA were all very close to 18 , with the p-value close to 0.002 , these results are all showing these four data highly related. However, if we print their scatter plots, we are going to find that their scatter plots reveal dramatically different structures: linear, nonlinear, outlier-driven, and dominated by a single influential point.



This highlights the danger of relying solely on numerical summaries or regression output. So the solution is to always include visualizations while analyzing data. By doing so, human can then detect nonlinear data, identify outliers, and tell the influential points before drawing conclusions from statistical models.

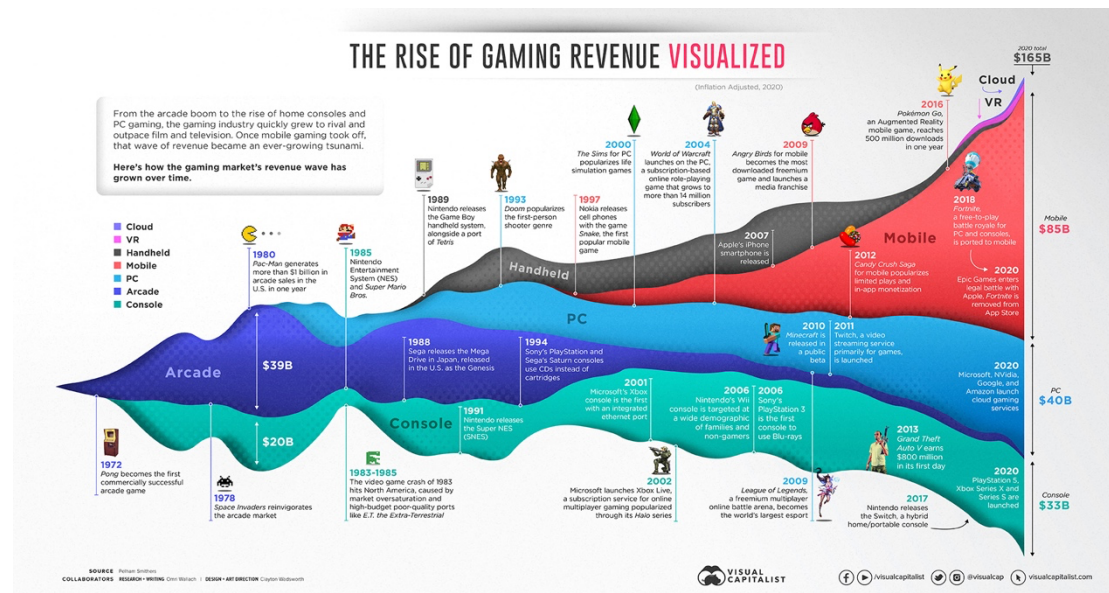
2.



Spring.R

3.

<https://www.visualcapitalist.com/50-years-gaming-history-revenue-stream/>



The chart "The Rise of Gaming Revenue Visualized" by Visual Capitalist shows how the video game industry has grown across platforms such as arcade, console, PC, handheld, mobile, VR, and cloud. A strength of the charts is that it highlights key events in gaming history, such as Pac-Man in 1980, the iPhone in 2007, and Fortnite in 2018. These events explain the trends, and help readers link market changes with technology and specific games. The colors are also well chosen, making them easy to tell apart.

The weaknesses are that the flow design makes it hard to read exact numbers, for only knowing the shape changing, it's very hard for people to tell the precise data. However, data visualization should first aim for clarity. So maybe if they can try to add more interactive details to make the chart even more appealing.

Despite there are some weakness existed, this is still a very good chart for showing people how the gaming industry works and grow.