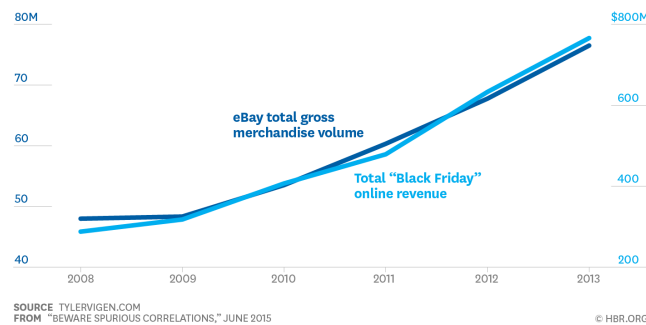


## Wrong Linear Models:

In this report, I got my wrong linear model from the Harvard Business Review. The author got the graphs from Tyler Vigen, the author of *Spurious Correlations* who has a whole website dedicated to showing correlation between two completely unrelated things. As funny as some of the graphs were, the methods used to manipulate these graphs would be something that the everyday person would find in a regular day.



When looking at the graph it looks relatively normal but there are quite a few problems with it. The first issue is that it uses two unrelated variables that have a strong correlation. The second issue is that there are two y-axes which adjust the scales these two variables are being measured on. The third issue is that the y-axis doesn't start at 0 for either variable. In conclusion, this is a misleading chart due to the use of unrelated variables, two different scales being used, and the y-axis not starting at 0.

In order for this graph to be correct there are a couple things that need to be fixed. The first would be to change the variables to two things that are actually related to each other to prove causation. In the case above there is correlation but causation cannot be proven. The second fix would be to make another graph so you could view the graphs side by side and compare the variables. The third fix for the individual graphs would be start the y-axis at 0 so these variables are measured against the same starting point, getting rid of the skewness.

<https://hbr.org/2015/06/beware-spurious-correlations>