**Dimension Reduction** ne ise yarar?

1- Zaman, kaynak tasarufu

2- Complexity azalir – decrease [curse of dimensionality]

3- Modeli iyilestirir [ later we will give examples ] [ not always ]

4- [50] boyutlu ==> 3 boyutlu visualize

5- (NEGATIF) it become more difficult to explain!

6- Generate new (realistic) data!!

7- Anomaly detection

8- Distance (!)

9- Clustering

10- how complex the dataset is

11- centroid

12- feature mining

anonymization

GDPR

How to generate data

0- pure random, in ranges

1- random data with distributions [problem, can be negative, problem with categoric variables, no corelation]

2- get a row and change it randomly

3- means

4- pca