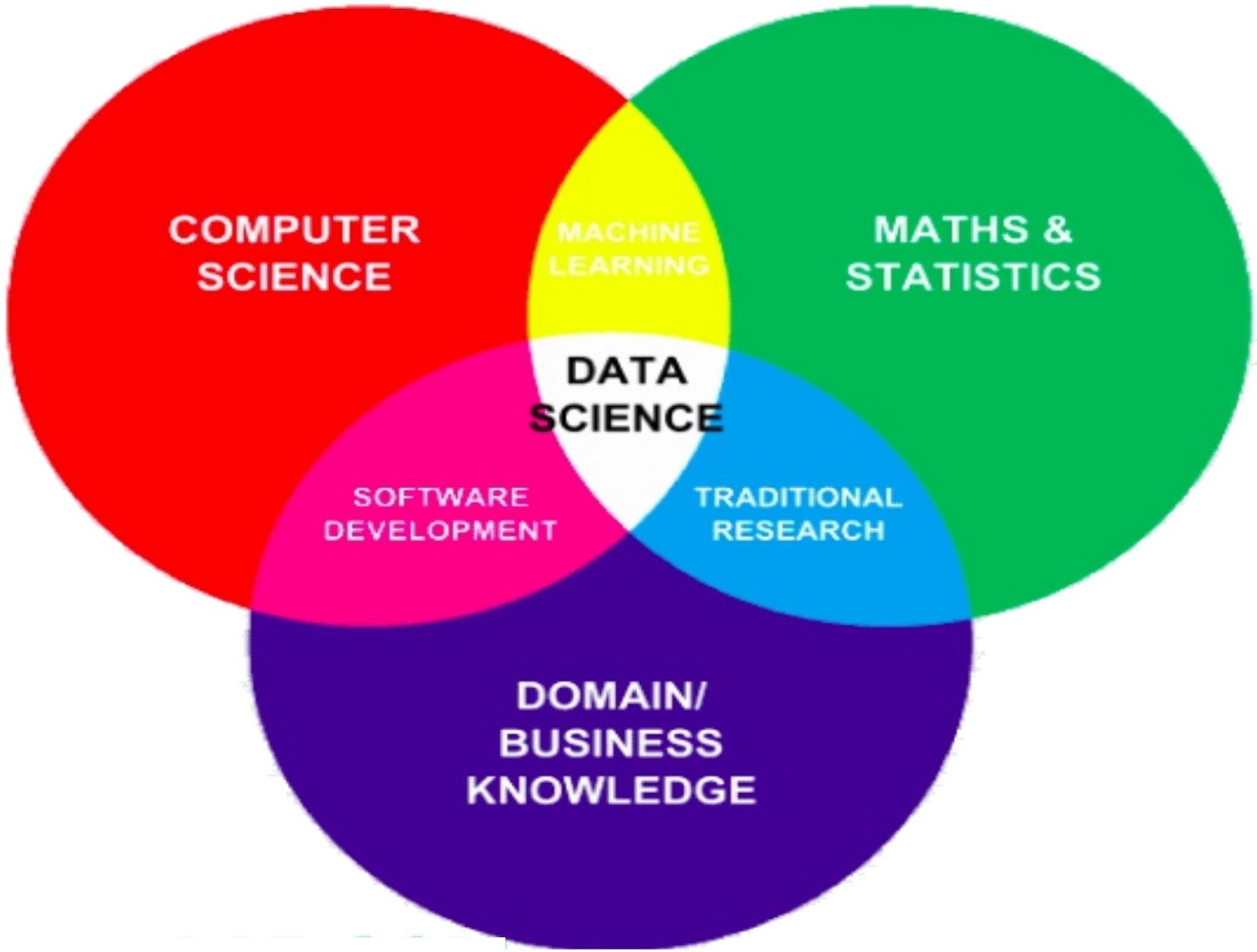
Python for Data Science

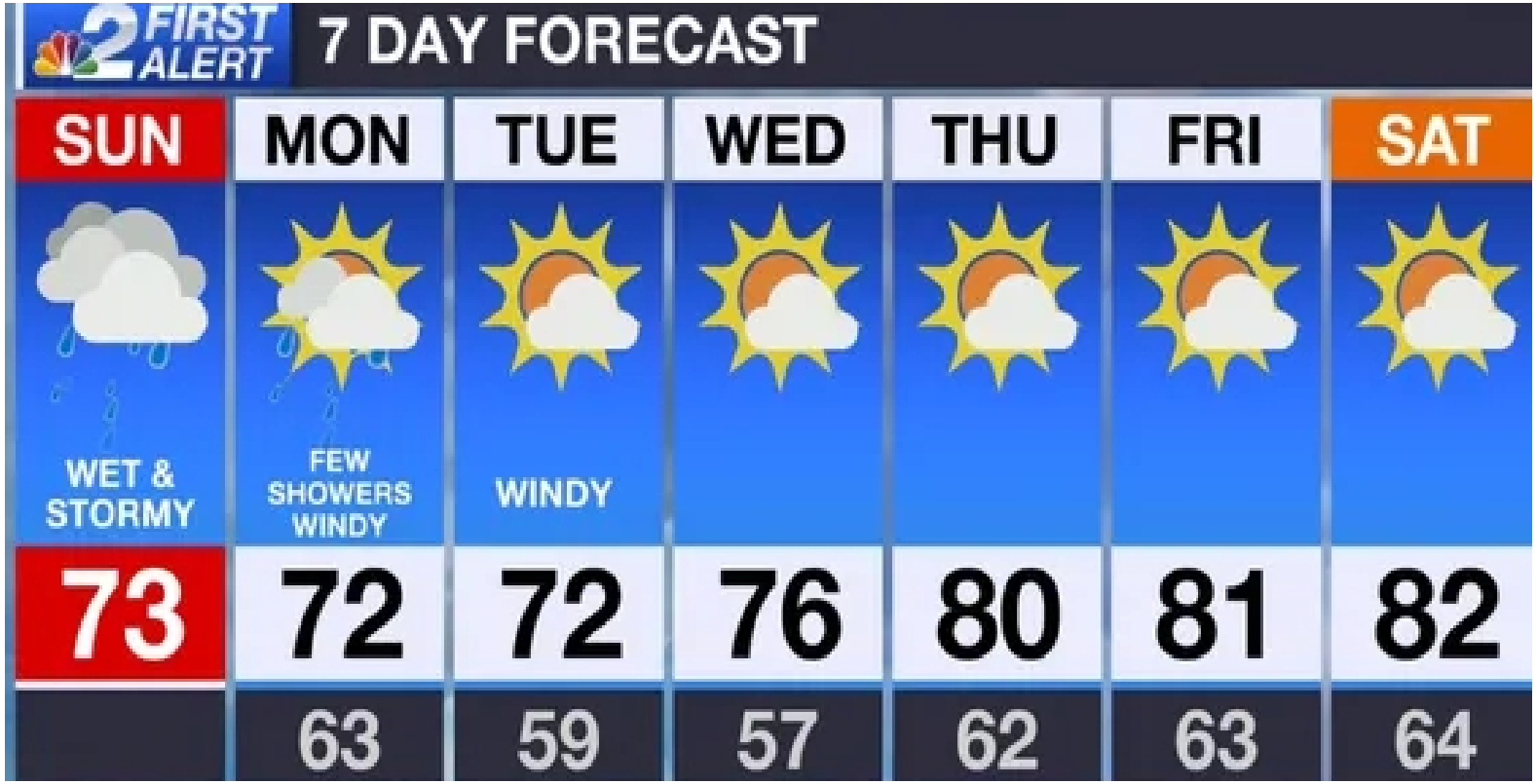
What is Data Science?



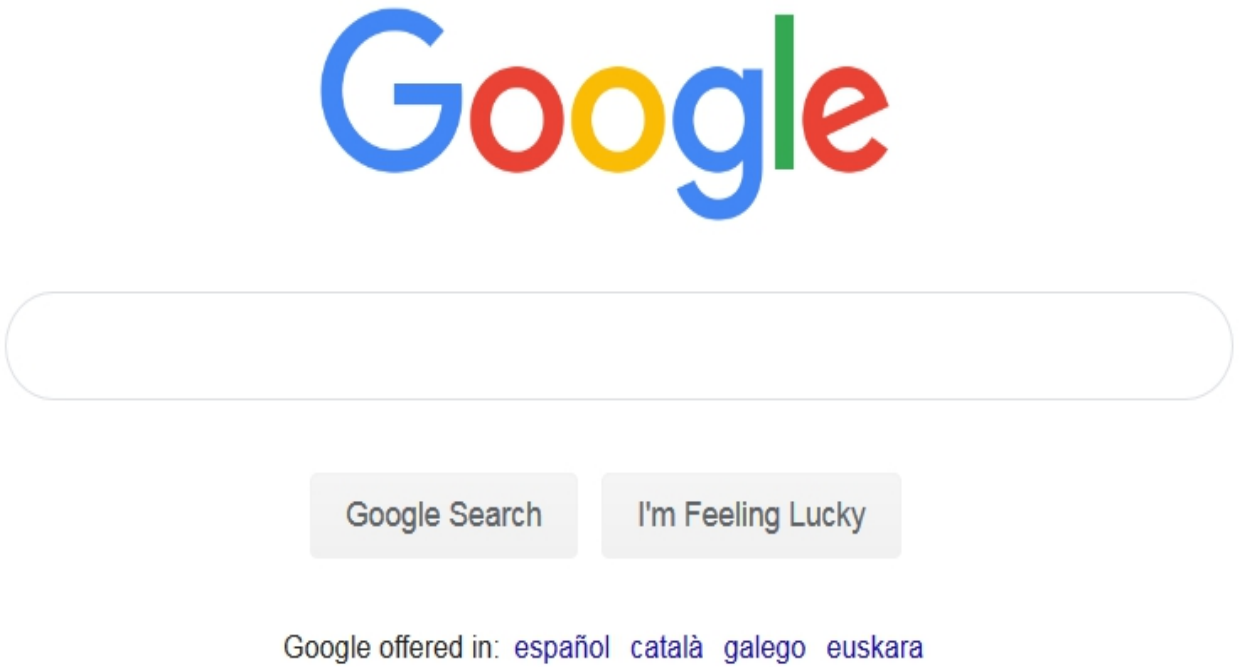
Why Data Science ?

Prediction for future:
Stock Market

Future prediction:
Weather Forcast



Cluster Analysis

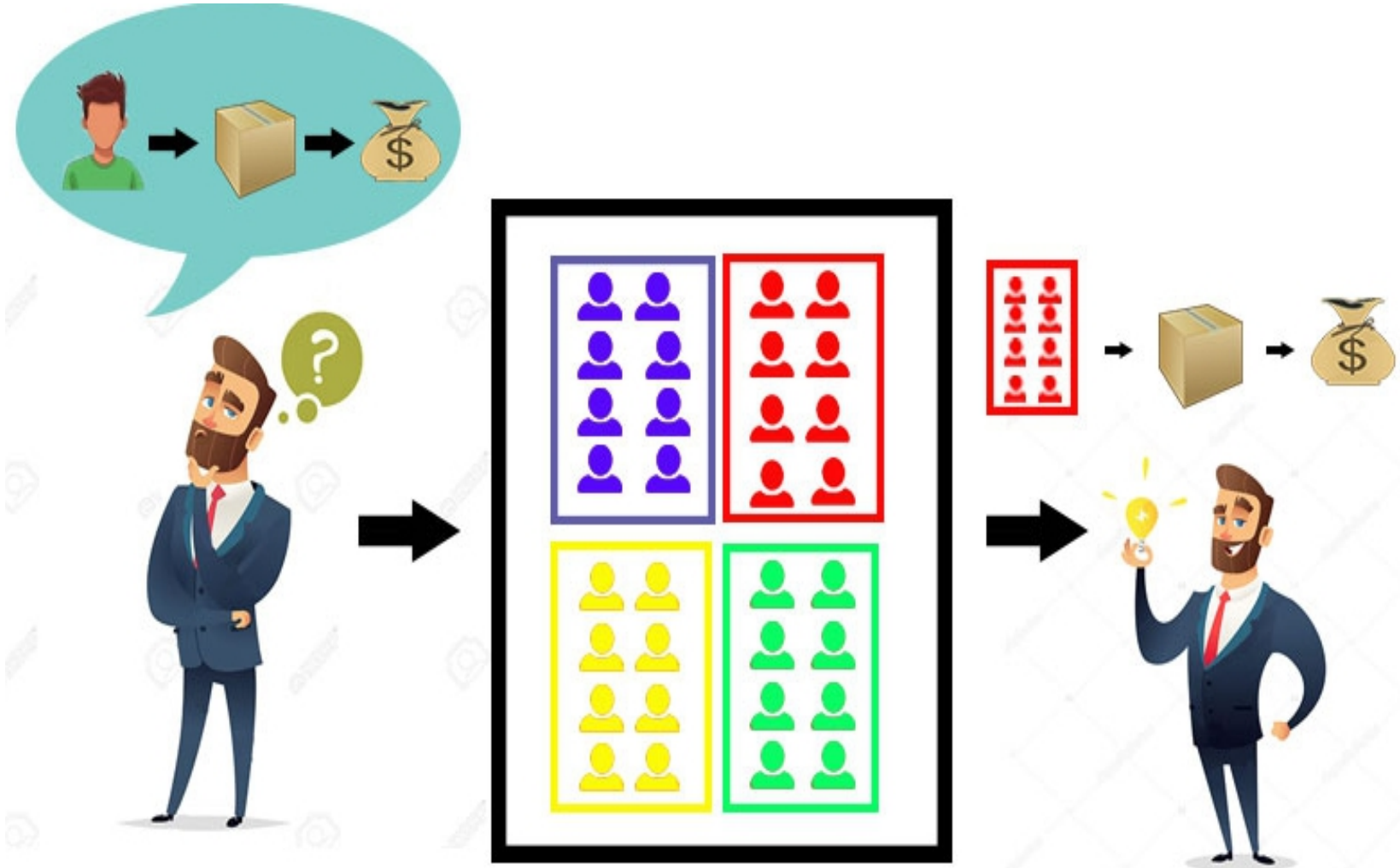


- **enhance a search result**
- **advs. recommendation**
- **website recommendation**
- **suggest interested news**

Cluster Analysis

- recommend new frends
- recommend new groups
- recommend interested advs.

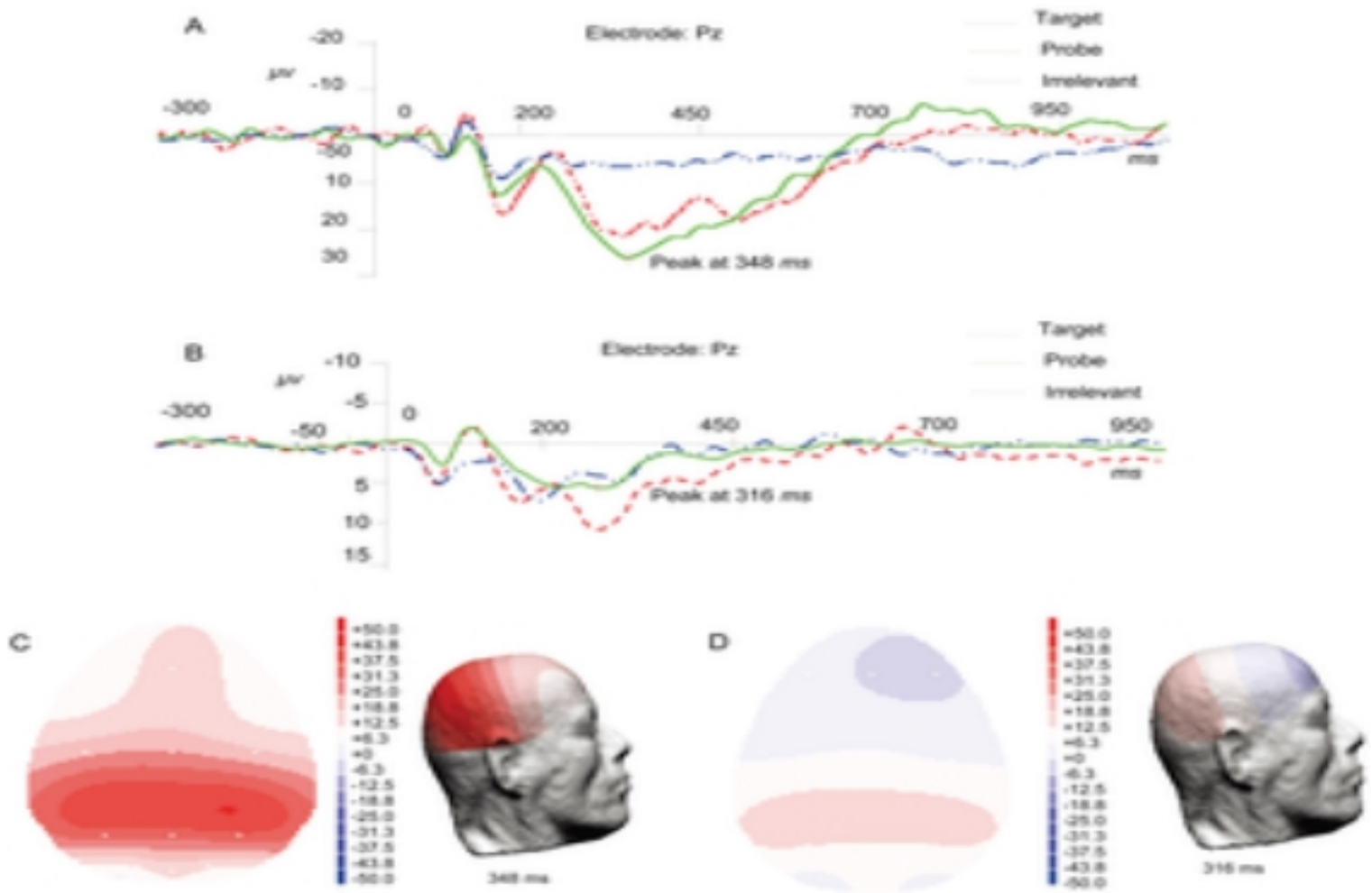
E-commerse
CLuster Analysis



Document Clustering

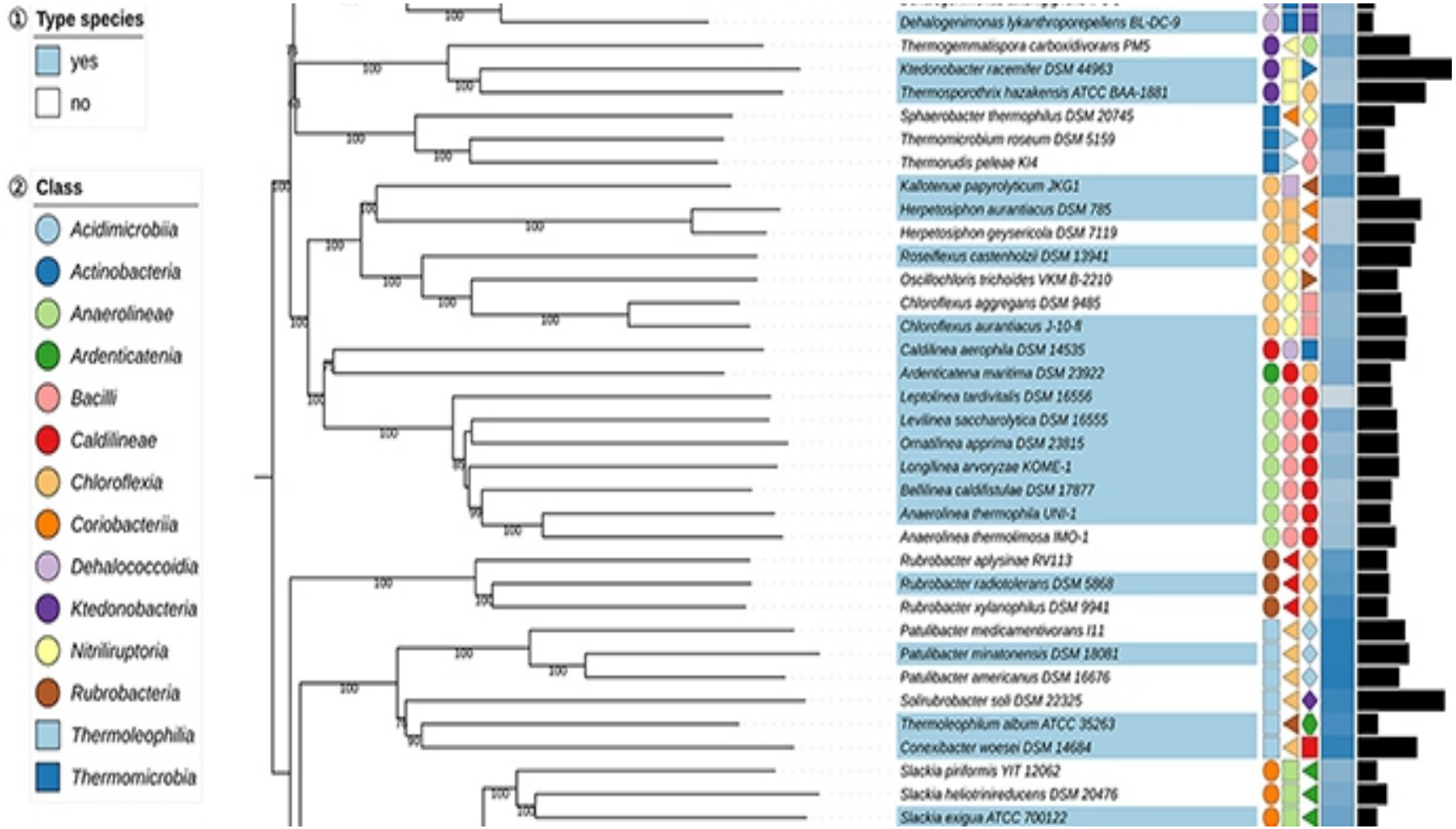
Fraud Detection

Lie Detection



Medical Applications

Bioinformatics: Classify function of new gene/protein



Bioinformatics: Detect disease via gene mutation

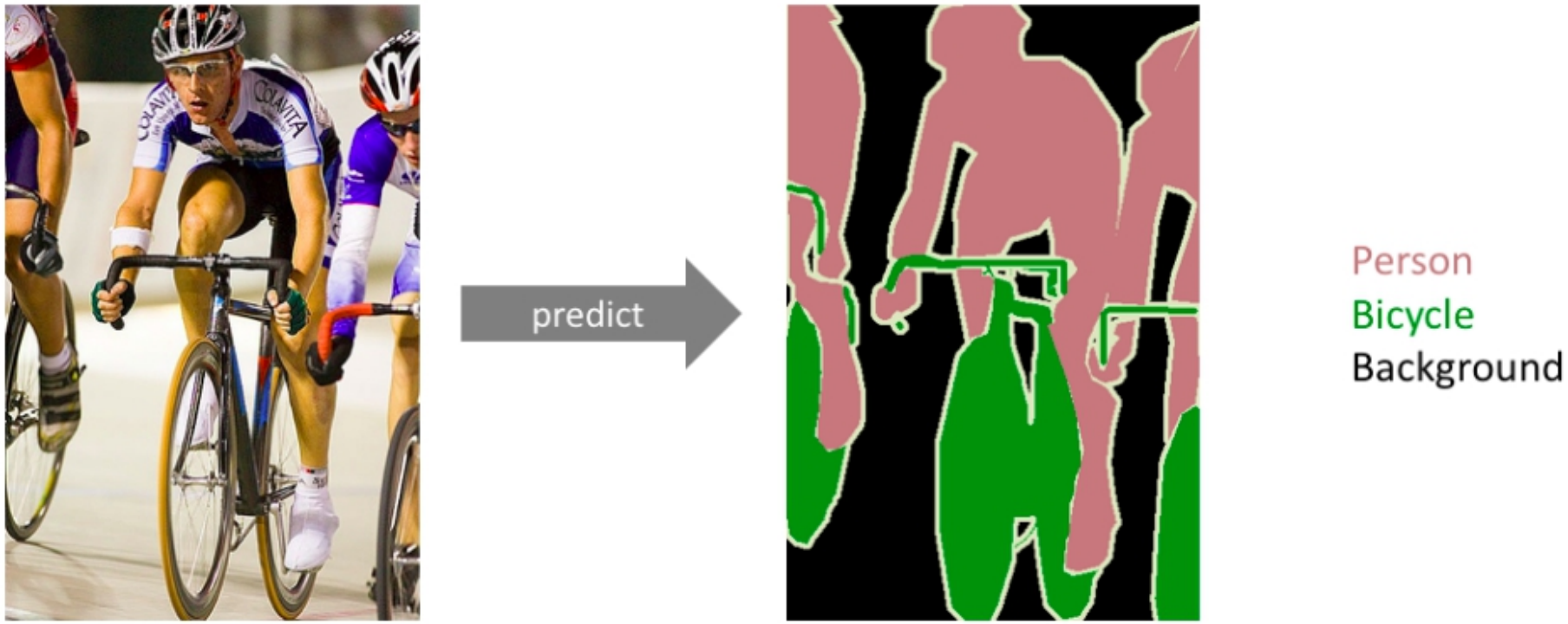
Neural style transfer

For example, let's take an image of this dog and Wassily Kandinsky's Composition 7:

Yellow Labrador Looking, from Wikimedia Commons by BF. License CC BY-SA 3.0

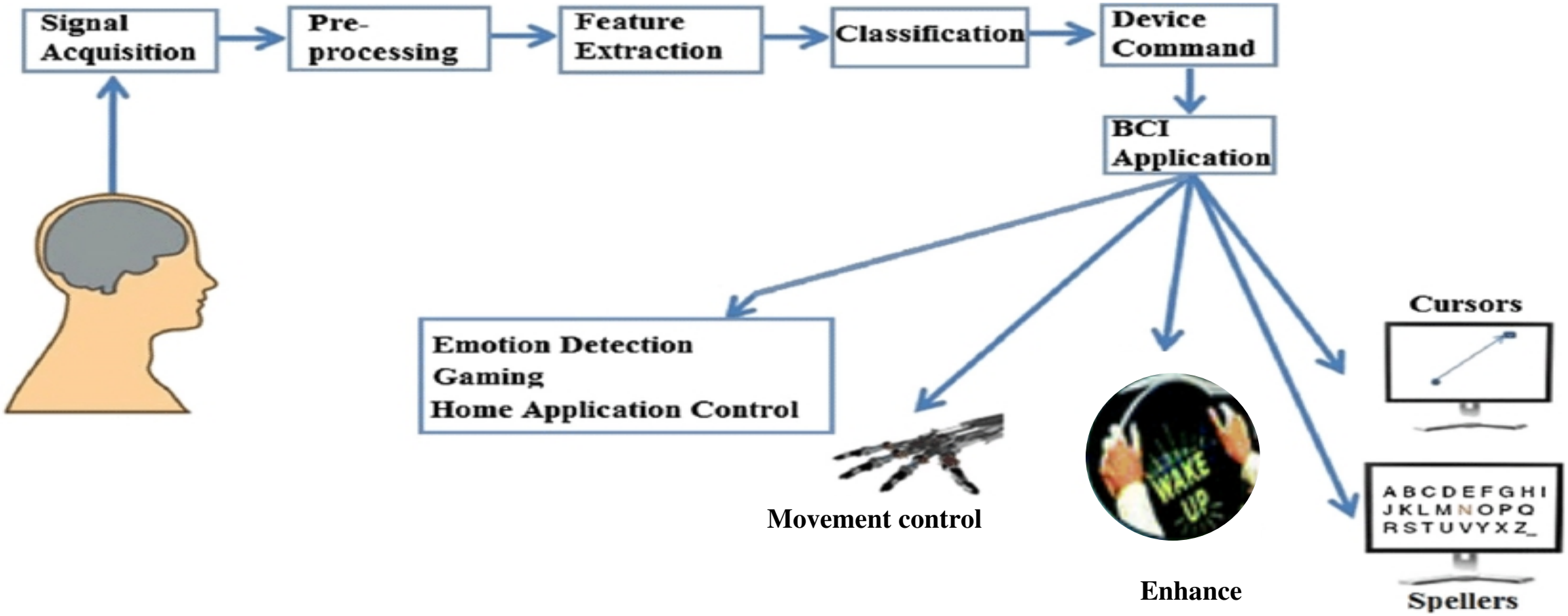
Now how would it look like if Kandinsky decided to paint the picture of this Dog exclusively with this style? Something like this?

Semantic Image Segmentation



An example of semantic segmentation, where the goal is to predict class labels for each pixel in the image. (Source)

Brain Computer Interface (BCI)



And many more .....