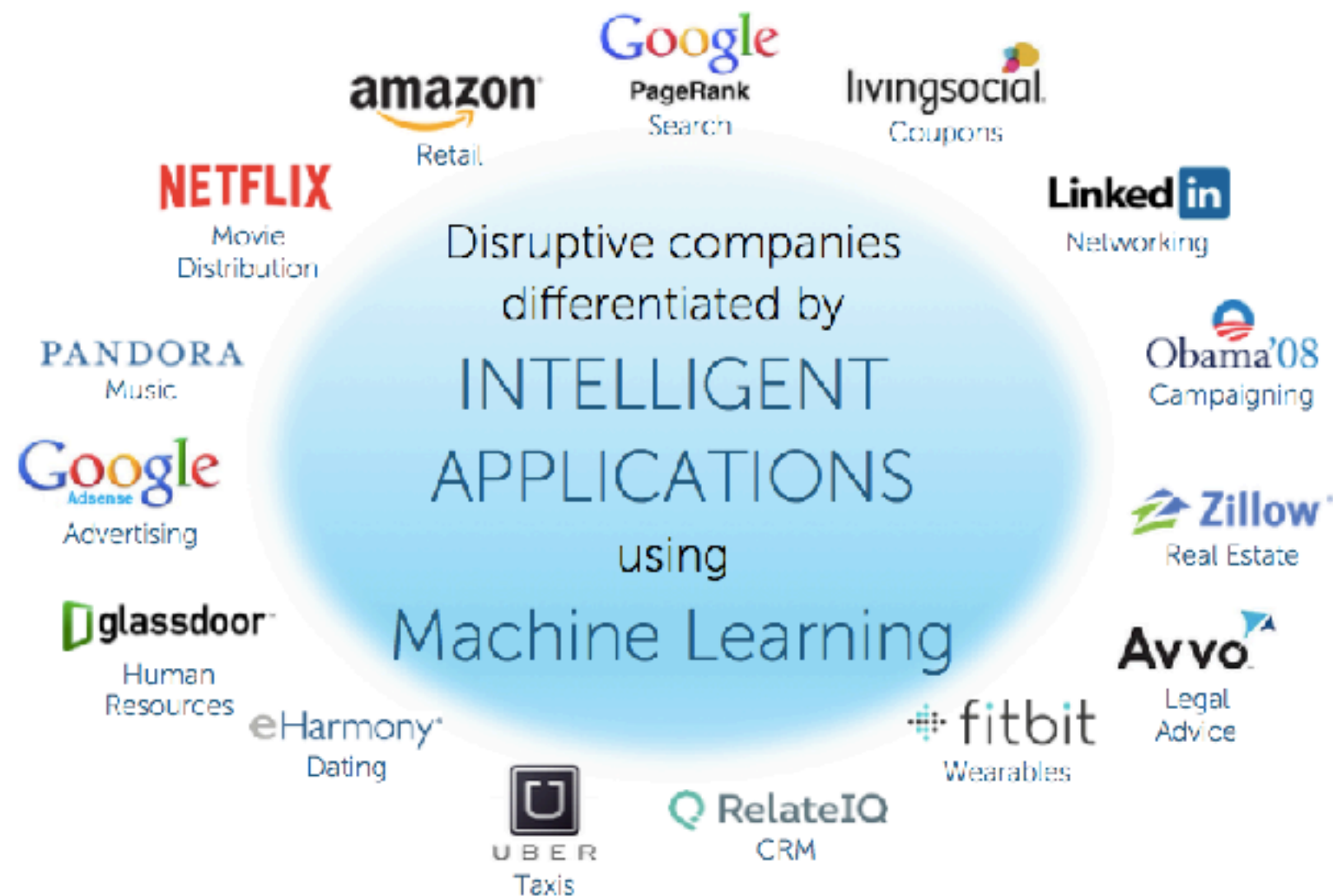


Machine Learning

Ladle Patel

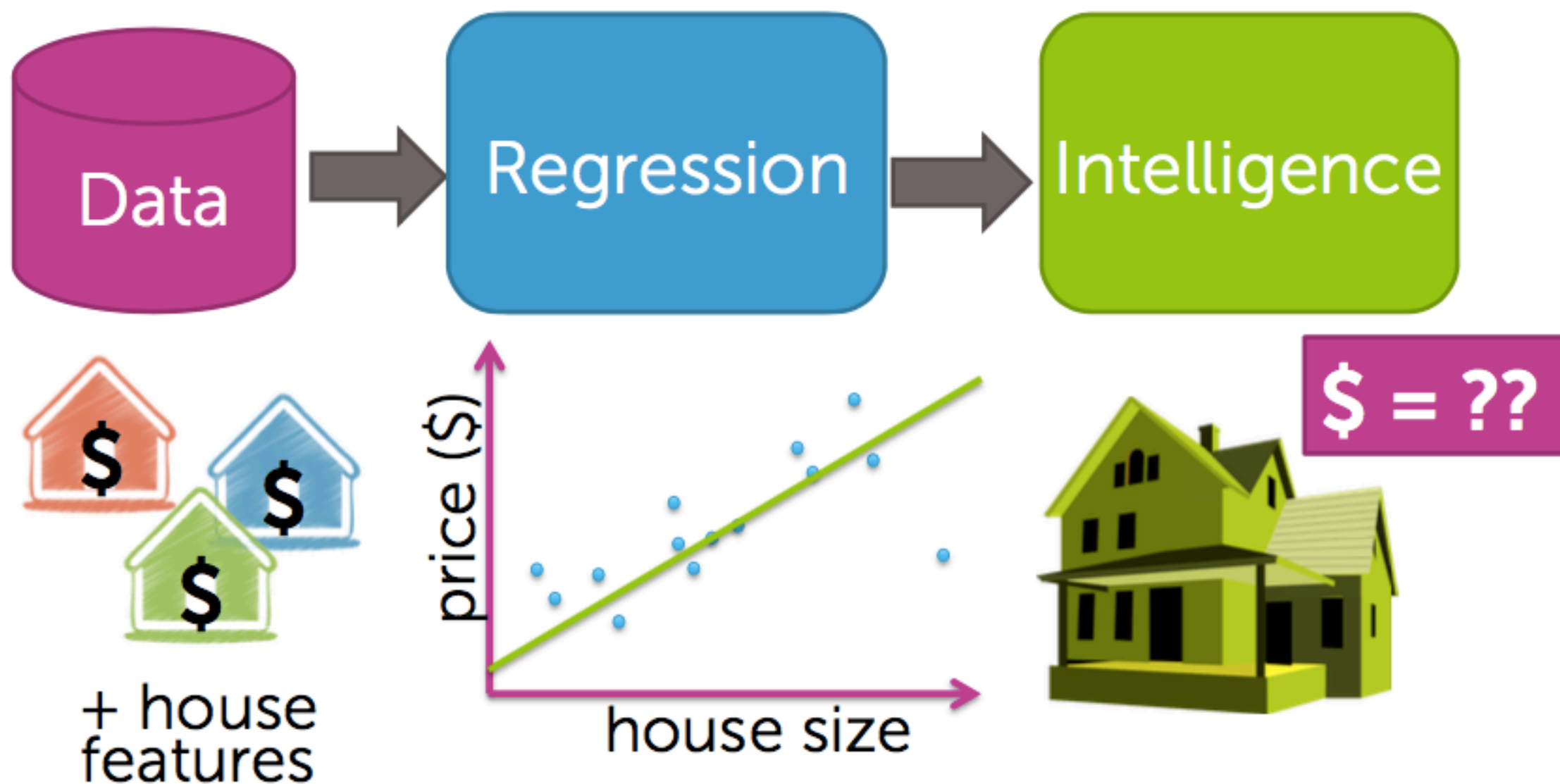
Who is using Machine Learning



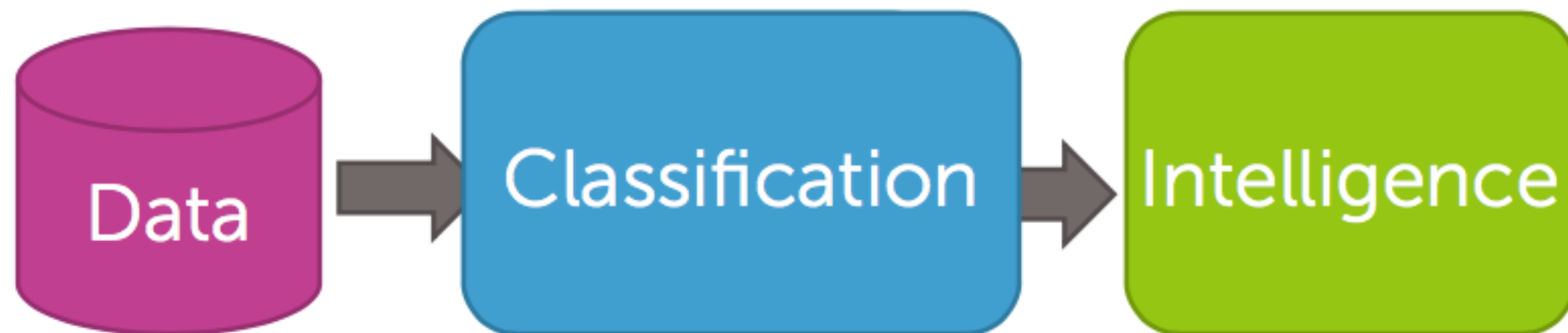
What is Machine learning



Predict House Price

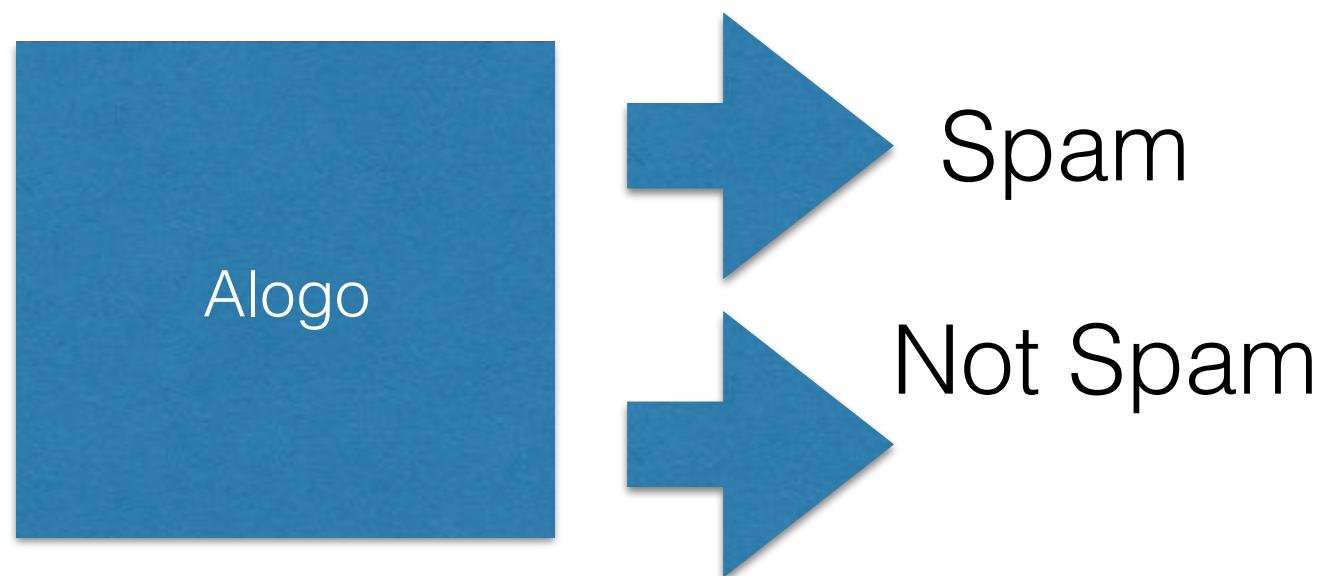


Document Classification



FROM: gorgon@...
 Subject: GOOGLE LOTTERY WINNER! CONTACT YOUR AGENT TO CLAIM YOUR PRIZE

 GOOGLE LOTTERY INTERNATIONAL
 INTERNATIONAL PROMOTION / PRIZE AWARD
 (WE ENCOURAGE GLOBALIZATION)
 FROM: THE LOTTERY COORDINATOR,
 GOOGLE IT Y AS NINE P:
 RESULTS FOR CATEGORY "A" DRAWING
 Congratulations to you as we bring to your notice, the results of the First Ca
 Inform you that your email address have emerged a winner of One Million (1.1
 money of Two Million (2,040,000.04) Euro shared among the 2 winners in the
 email addresses of individuals and companies from Africa, America, Asia, A
 CONGRATULATIONS!
 Your fund is now deposited with the saying clerk. In your best interest to av
 avoid strictly from public notice until the process of transferring your camo
 NOTE: to file for your claim, please contact the claim department below as a



Clustering



Recommendation

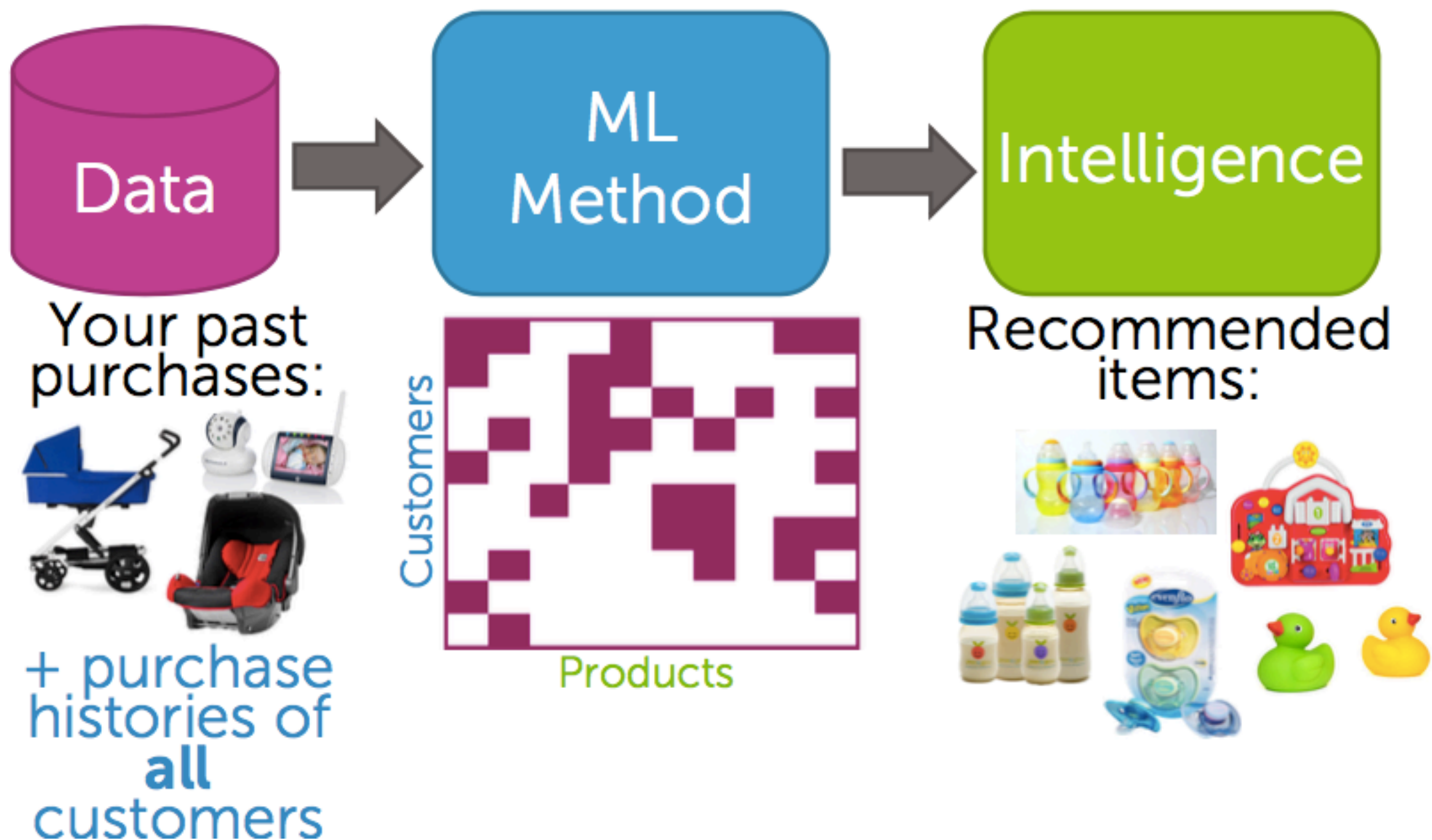


Image matching



Input images:



Layer 1



Layer 2



Nearest neighbors:



y

Definition

- It is a field of artificial intelligence, which is a sub-field of computer science, in which we teach computers by example and ask computer to predict for new example automatically .

Types of Machine Learning

1. Supervised Learning.

Ex:Regression, Decision Tree, Random Forest, KNN, Logistic Regression

2.Unsupervised Learning.

Ex:K-means.

3.Others

Ex:Markov Decision Process

Terminologies

- **Observations** :Items or entities used for learning or evaluation in the context of spam detection, emails.
- **Features** :Are attributes used to represent an observation.
Ex:In housing prices prediction ,size,area,floors etc.. Are
- **Labels** :Are values or categories assigned to observations. and again, in the context of spam detection, these can be an email being defined as spam or not spam.
- **Training and test data** :Observations that we use to train and evaluate a learning algorithm.

Tools and Problem

- Matlab.
- Octave.
- R.
- SAS.
- SPSS.
- Python.
- etc..
- Most of the traditional analytical tools runs on single machine.



Thank You.