

# What do you want the machine learning system to do?

I want to see if there are natural clusters or dimensions in the data I have about different situations.

I want to learn what actions to take in different situations.

Do you want the ML system to be active or passive?

## ACTIVE

The system's own actions will affect the situations it sees in the future.

## PASSIVE

The system will learn from data I give it.

Do you have access to data that describes a lot of examples of situations and appropriate actions for each situation?

Will the system be able to gather a lot of data by trying sequences of actions in many different situations and seeing the results?

Could there be patterns in these situations that humans haven't recognized before?

Could a knowledgeable human decide what actions to take based on the data you have about the situation?

**UNSUPERVISED LEARNING MAY BE APPROPRIATE**

*clustering  
anomaly detection*

**SUPERVISED LEARNING MAY BE APPROPRIATE**

*neural nets  
support vector machines  
regression  
recommender systems*

**MACHINE LEARNING IS NOT USEFUL**

**REINFORCEMENT LEARNING MAY BE APPROPRIATE**