

Information Mining - winter semester 2020/21

Exercise sheet 1

Excercise 1: Understanding

What is machine learning? Where does machine learning find applications?

1.A technique that gives machines the ability to learn, without any explicit programming.
2.almost any possible field which desire a prediction.

Excercise 2: Understanding

What do you understand under classification and clustering? What are the differences?

classification is supervised , we know the output of instances while learning phase.
clustering is unsupervised .

Excercise 3: Understanding

What is regression and how different is it from classification?

regression is aiming to make a numeric prediction.
classification is to predict a class , normally nominal.

Excercise 4: Understanding

Give an example classification problem as well as an example regression problem. Define for each of the problems the dependent variable (class) as well as up to five independent variables (features or attributes).

classification problem: predict what it is.
regression problem: predict how much it will be.

Excercise 5: More understanding

Give an example problem where you would make use of clustering. Based on what attributes/features would you guide your clustering algorithm?

e.g. I want to know how many different kinds of people there are in a certain amount of people.
features : age , gender , culture , ...